DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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FARM WORK FOR MARCH.

March is usually a rough and boisterous month —a continued contention of the elements for the mastery. Now, the glad sunlight rests upon the earth and soft airs from the south call out the bluebird and robin, and invite us into the garden to look at the snowdrop, the crocus and yellow hellebore, the first sweet harbingers of spring. But ere the birds have finished their song or the flowers unfolded a leaf, hoarse breathings at the North are heard, and down comes old Boreas again with all "his attendant train" of hail, sleet, wind and snow. Like a bright meteor, the golden moments quickly passed, and winter reigns again supreme.

But March weather, rough and blustering as it is, could not be spared. Its rude winds are ordained to sweep away the surplus moisture and prepare the soil for the hand of the cultivator. The old proverb tells us that "a peck of March dust is worth a king's ransom." It indicates continued dry weather and a suitable condition of the soil for the reception of seed. Were these winds hushed, and the redundant March moisture remain, seeds would not germinate, but rot and decay. "A dry and cold March never begs its bread—because it prepares the earth for seed time —but a wet March makes a sad August," because the ground is saturated with cold water, the seed is spoiled and yields no crop in August.

The winter has been stern and cold—we long to see the streams unlocked, to think that "the winter is over and gone"—to hear the birds singing, and feel the warm sunshine and balmy air. We cast lingering looks up and down the garden walks where a crocus is peeping from the rubbish, among which the warbling sparrow tunes his little throat, though thick flakes of snow may be falling fast. We are impatient for genial skies and gentle winds, without counting the cost of an enjoyment of them *now*. We forget that "the *late* spring makes the fruitful year," and that if we have April suns and showers now, April frosts will pinch the buds and blossoms which they have produced, and we shall have neither fruits nor flowers in due season; and this explains the other old proverb, that "March flowers make no summer bowers."

But there will be days of sunshine and softness, in March, and spots in the garden or field ready for the exercise of a skilful hand, and these, with various other matters, demand the attention of the husbandman *now*.

Clover Seed.—This month is a suitable time for sowing clover seed on fields laid down to grass in August or September last. Clover is apt to be winter-killed, and most persons leave the seed for spring sowing. It may be scattered upon the snow, which affords a good opportunity for ascertaining how thick to sow it; or upon the ground, or even where the water is standing—there is no difficulty in its coming now.

Early Potatoes.—Prepare potatoes for early planting by sprouting them in horse manure, or in barrels by the kitchen stove. Plant in some sunny border or sheltered place and you may have fine potatoes by the 20th of June, or earlier if all circumstances are favorable.

Hot Beds.—See that these are in order, and start your tomatoes, lettuces, egg plants, &c.

Grape Vines.—Make a judicious trimming of these, and shorten down to three or four eyes of the vigorous shoots of last years' growth. Prune apples, and other fruit trees—*that need it*—but not to indulge a fancy for using the knife and saw, as that may more properly find vent on the wood pile. Look after the currant and other bushes; clip the tops and tie up the raspberry bushes that were neglected last fall, and you shall find an abundant recompense by-and-by.

Fruit Stones.—Sow such fruit stones as have been preserved, and mark the rows of each.

Plowing.—Stubble or other fields on sandy land intended for potatoes may be plowed this month. In

such case potatoes may be planted quite early, and thus, perhaps, escape the rot. Sward ground, intended for corn, it is better to plow with a good coat of grass on it; this affords a very considerable nourishment to the crop planted and facilitates the decomposition of the turf.

Implements.—Every farmer should have some place which he calls a shop where he can repair and perhaps make some of his coarse, cheap implements. But his plows may be purchased cheaper, and will be altogether better made by exact patterns in the hands of skilful workmen, where the true pitch, line of draft and all other things will be right. So of his harrows, cultivators, and most large implements. Are all your implements in good order for use?

Foul in the Foot in Cattle.—This is one of the worst diseases to which our neat stock is subject. Attacking a single animal, it sometimes spreads to the whole herd, occasioning great loss, inconvenience and trouble to the owner, and much suffering to the poor animals themselves. The disease is undoubtedly occasioned by the animals travelling through the mud, urine, and manure of the yard; this collects between the claws and gathers about the foot and leg until this obstinate and sometimes fatal disease is generated, and it is legitimately in the farmer's work for March to prevent it. Keep the feet of your animals clean, and there will be little danger of the disease. Its first appearance is generally between the claws in the form of a crack; this is followed by inflammation and the discharge of a yellowish matter or pus. "Sometime a little swelling appears on the coronet between the hair and hoof, which discharges offensive matter." Foul in the foot is a most serious disease, and demands immediate attention when the first symptoms are discovered. Attacked in March, oxen are sometimes rendered unfit for any spring work, and cows shrink rapidly in milk and flesh. If not checked early the foot becomes greatly swollen, intensely sore, and the hoof in bad cases drops off. It may all be prevented by care and cleanliness.

Fences.—Where the frost is out, build up gaps in the wall where it has been thrown down by its action or other causes—repair the board or rail-fences now before the seed-time demands your attention. If by plowing and sowing early you lose a little seed, it is better than to postpone all your work until the soil is in the most fitting condition. Early crops cover the ground and get established before our usual summer drouths come on. They thus prevent excessive evaporation, and hold in reserve the moisture which would otherwise escape during the long, hot dry days of midsummer.

Stock.—Look well to the stock and guard against disease of every kind. A few roots fed to the sheep will prove of great service, after feeding upon dry hay for months. Where evergreens are convenient, scatter them about their yard. They will show you at once how they appreciate them.

Do not feed cows too highly, either immediately before or after calving. It is a practice with some persons to feed meal to the cow just before calving. Instead of this it would be better to withhold a small portion of the usual food. Sprinkle a little yellow snuff or ashes over the backs of both cattle and swine—judiciously applied, it will do no harm, and will prove inconvenient to any vermin who may make a call there.

System.—Plan all your spring operations this month and it will save you a deal of vexation.

For the New England Farmer.

GRAFTING THE SIBERIAN CRAB APPLE.

BY A YOUNG DIGGER'S COUSIN.

Mr. Brown:—Having noticed an article in the *N. E. Farmer* of Jan. 3d, signed "A Young Digger," in regard to the Siberian crab apple, I take this opportunity to give the result of my experiments.

About twenty-five years since my father bought six Siberian apple trees, which were set out and cultivated, not simply as ornamental, but with the hope of deriving a profit; but after waiting about sixteen years with no income from them, in 1843, instead of laying the "axe at the root," I had the saw put at the top of four out of the six, and scions of the Red Baldwin and Red Shropshirevine inserted, and the growth of the scions far exceeded my most sanguine expectations, being in two years equal to that on any of the common apple trees. These four stood on the east side of a stone wall running north and south, and being in a rather warm situation, the two grafted with Shropshirevines were sun-struck, and died, the fifth year from grafting—which is not unusual with this variety, as the bark of the Shropshirevine tree is very thin and is more liable to be sun-struck than any variety with which I am acquainted. I should recommend to those grafting the Shropshirevine, to insert their scions in trees standing on the north of buildings, or on the north side of trees, so that the limbs may be screened from the scorching rays of the sun, as this variety flourishes better in a colder or more northern latitude. The two grafted with Baldwins did well, and bore a handsome crop the third year from grafting, and have borne two crops since, the three crops being worth $25 from trees which had not borne a crop before worth one dollar. The apples were as large and fair on these trees as those grown on other trees, keep well, and not a little pains is taken to obtain scions from the trees. The result of grafting the four out of six Siberian apple trees was so satisfactory that it was thought best in 1848 to graft the two remaining. I selected scions of six varieties of apples, and two or more of pears, and had them inserted the last of May, 1848. The growth of the scions was rapid, and the next year the grafts of the Bartlett pear blossomed and bore several as large Bartlett pears as I ever saw. The next year the pear scions broke out, and I have satisfied myself by experiments tried for the last ten years, that you can calculate with no certainty upon pear scions inserted in apple stocks, the nature of the two

being so different the union is imperfect. I once saw a pear tree on an apple stock which had been growing 12 or 15 years and bore pretty well, but I have not had them live over four years. In each stock I had a pear and an apple scion inserted, so that when the pear scion should fail, its place might be occupied by the apple scions, and the result was that the third year, 1850, the pear and apple grafts both blossomed, but the pear grafts broke out in July or August, having pears on them half or two-thirds grown. The following autumn the apple grafts fruited, which with the Siberian apples growing on the ungrafted scattering limbs, presented a contrast which was not only pleasing to the eye but a source of profit to the pocket, and the object sought for in grafting was obtained.

Finally, in reply to the inquiries of "A Young Digger," are stocks from the seeds of the same nature, and do they make as large and long lived trees, as stocks from the seeds of other varieties? I will say, if you insert buds or scions of the common apple tree in small stocks of the Siberian apple, the result will be dwarf trees. Stocks from the seed are of the same nature, but I doubt very much their growing as large as the common varieties; and as to the Siberian stocks making as long lived trees as those of the common varieties, I should doubt it, from what specimens I have seen in the New England States and New York. I am not so well prepared to answer as the boy was when asked how long a certain kind of rails would last, replied "they would last three or four generations, for his father had tried them."

Southboro', Jan. 20, 1852.

THE LOCUSTS.

Gideon B. Smith communicates the following intelligence in regard to the seventeen year locusts to the *Baltimore Patriot:*

"The seventeen year locusts will appear this year in Connecticut, east of the river, in portions of Tolland, Middlesex and Hartford counties, about Manchester, Glastonburg and Chatham, and most probably in a portion of Massachusetts north of these places. They will also appear in Franklin, Bristol and Hampshire counties, Massachusetts, and especially about Fall River. I have been unable to ascertain whether they will appear in Rhode Island, but they most probably will in the neighborhood, especially adjacent to Massachusetts at Fall River. In Barnstable and that neighborhood in Massachusetts they will not appear until 1855. The grubs or larvæ of these insects may now be found in all places in the above districts where forest or other hard-wood trees and shrubbery grew seventeen years ago, by digging two or three feet in the ground.

They will be found singly in their little horizontal cells, in a half-torpid state. About the first of May they may be discovered by merely shaving off the top soil with a spade, when their chambers will be found completed near the surface of the earth. It would serve the cause of science if some one in those districts would take the trouble to make these researches, and also to watch their first appearance above ground, which happens several days before any notice is attracted to them.

I expect they will first begin to emerge about the 1st of June in the above districts. This early notice is given of their expected appearance, that those who have the opportunity may be prepared to take the proper notice of them. I shall be very glad to receive any information on the subject that may be elicited."

For the New England Farmer.

AXLETREES.

Mr. Editor:—I find in the *N. E. Farmer* of the 13th ult. a communication from Wm. D. Brown, on "Oiling Axles." I think his views correct on the subject, and his remarks might be extended a little further. Your correspondent recommends using sperm oil for oiling axles, in preference to any other kinds of grease; but what I have found to be still better than that, is olive oil. I have a common one-horse buggy wagon, which is the only carriage I have for the use of my family, which cost me for an outlay to furnish it with olive oil for the past season, the sum of *one dime.* I think it is the best and cheapest article that can be used. Mr. Brown, in his communication, says that he "don't believe in the economy of wooden axletrees at all," but we farmers in Vermont think we get a greater amount of strength, compared to the weight of the axletree, from wood than from iron.

Will not some scientific mechanic inform us on this subject. Insley Dow.

East Corinth, Vt., Jan., 1852.

☞ We have received a copy of the excellent Address of Col. M. P. Wilder, before the *Berkshire Agricultural Society*, at Pittsfield, in Oct. last. It is a plain, practical, earnest production, containing many valuable statistics, and admirably adapted to influence the farmer to a more careful consideration of his own interests. In the present crowded state of our columns, we have only room for the following extract, which we hope every farmer in the union will read:

"True, we have agricultural papers and periodicals, and they have wrought wonders in the dissemination of knowledge. Where there was only one ten years since, there are now a dozen, urged on in their noble cause by a generous rivalry and competition, and it is estimated that in New England alone, there are sent out, weekly, more than fifty thousand copies. These are cheering omens. Their rapid increase and extension, evince the growing interest of the community in this department of literature. Where they were once ridiculed as chimerical and visionary, they are now hailed as the welcome messengers, and as the best friends of the farmer. Let then no farmer deny his sons the advantage of at least one paper, which is either wholly or in part devoted to this subject."

Farmer and Planter. Pendleton, S. C., Geo. Seaborn and J. J. Gilman, Editors.—Papers devoted to Agriculture and Horticulture are springing up in many portions of the country where none have heretofore been published, and a new era in the art has dawned upon us; while those which have attained some years, are assuming new forms and attractions. The one before us gives evidence of talent and thrift. Its editorials and remarks

upon the subjects which come before it are sound and instructive. The land of cotton and the cane is progressing with us in these days of improvement.

For the New England Farmer.

A FEW REMARKS ABOUT HEDGES.

BY HENRY F. FRENCH.

My Dear Brown:—You write that a friend wishes me to give some information about *Hedges*, through the *N. E. Farmer*. I take pleasure in doing so, because I think true *economy* as well as good taste requires more attention to the subject.

Every one desires to surround his home with beautiful objects, and much money is thrown away to gratify *false* taste, when the *true* may be satisfied at little cost. I do not reccommend hedges for enclosures, merely as fences, to stop cattle, because stumps, and stones, and logs, and rails, and boards, are cheaper and safer, for us of New England. But for all localities, where ornament is regarded, as for lawns, and what we Yankees call *front yards*, there is nothing so beautiful, and nothing, which is decent, so cheap.

One of the most common monuments of folly in our villages, is a fanciful front fence, elaborately wrought out of white pine boards, in diamonds, squares and circles, at an expense of twenty dollars a rod, instead of a living hedge, which all will admire, of a twentieth the cost.

The Buckthorn, Hawthorn, Privet, Triple thorn Acacia, known also as the Honey locust, and the Osage Orange, are the plants most used for hedges.

It is pretty well agreed, that the Osage Orange is not hardy enough to bear the cold of winter so far North as Boston. The Hawthorn makes a beautiful, strong hedge, but has been so generally attacked by the borer, as to suffer much in its reputation.

The Acacia is a plant of very rapid growth, throws out thorns, often five or six inches long, and in four or five years, makes a fence, which nothing short of the *Old Scratch* himself would undertake to get through. Its foliage is very beautiful, the leaf resembling that of the Sensitive Plant, and the hedge altogether is handsome *enough* while its glory remains. But it is very late in putting on its summer costume, and drops its leaf at the touch of the early frost, and this in a climate where we have seven months of winter, and five more pretty cold weather, is a serious objection. However, it has, at *any* time, as many leaves, and as much grace and beauty, as a board fence, so its three or four months of verdure is so much gained. The Acacia is also said to be attacked by the borer, but I have seen it in great perfection, and free from any attack of that enemy. My own hedge, of this kind, ten rods in length, has entirely escaped, during its growth of three years.

The *Privet*, for a merely ornamental hedge, has many claims to attention. It is a *shrub* in its character, and not, like the Acacia, inclined to grow into a tree. Hence, it is readily kept down, and throws out its branches close to the ground, and so is easily brought into proper form, by cutting. It is called by nurserymen, a *sub* evergreen, and holds its foliage and verdure until the snow flies. It is of no use as a *fence*, but for a screen, or ornamental division of grounds, is unsurpassed by any plant in use. It is said to be perfectly hardy, and free from the attacks of insects. I have never seen a full grown hedge of the Privet, but the half-grown ones which I have seen, accord with the character I have received of them, and which I have given above.

As to the *Buckthorn*, we know all about it, for the beautiful square, opposite the Phillips Academy in our village, owes all its beauty to the buckthorn hedge which encloses it That hedge was planted under the direction of the lady of the late Doctor Abbott, more than fifty years Principal of our Academy. Within the memory of a citizen of our village, but recently deceased, the grounds, in that part of the village, were a barren, drifting sand, so loose that the street was covered with poles and slabs, to prevent the wheels from cutting down. Now, in summer, it displays as agreeable a bit of landscape, of lawn, and hedge, and drooping elms, shading a smooth, graveled street, as can easily be found. Thus may the "waste places" be made to bud and blossom, all around, especially where "*woman* lends her helping hand, and taste refined."

The Buckthorn is growing all about us. It has been long known and tried, and on the whole, I should recommend it before all others, for a single hedge. It is clean, healthy, free from the borer, and all other enemies, may be cut into any shape, and when properly cared for, presents a compact mass of living green, from the ground to any height desired. A hedge of a dozen years growth *should* afford protection against cattle, but the animals of our free country are so accustomed to thickets, through which they press, at pleasure, and so ignorant, withal, about the whole system of hedge fences, that I hardly dare advise my friends to rely entirely on this species of hedge, to prevent their depredations, at least, for several years from planting.

You inquire about the mode of planting, and the management afterwards. I will tell you how I set mine, and your readers may improve upon my method, if they can. I have of the Buckthorn, about thirty rods, set out in 1849, '50 and '51.

My land being light and sandy, I threw out the earth, forming a trench about three feet wide, and eighteen inches deep, filled it up with turf and soil about half full, and the rest with good soil and compost manure, half and half. I set my plants on the trench, ten inches apart *in a single row*, in April or May, and cut them down to within four inches of the surface. I keep the land light and free from weeds, and cut the plants every autumn so that they gain but *six inches* height each year, the main object being to get the hedge thick at the bottom. Some of my plants I have cut twice, once in Summer and once in Fall or Spring. I am not decided whether they should be cut once or twice. My plants grew the first year, about two feet, and afterwards they have made shoots three or four feet long, when not stopped, in Summer. I procure my plants, and most of my fruit trees, from William Hall, of Bradford, Mass., a gentleman of taste and intelligence in these matters, and on whose integrity you may depend. Hedge plants may be procured of him, for, from one to two dollars per hundred.

If your inquiries are not all answered, I shall be happy to send you the balance of my knowledge, on the subject, if any there be, on demand. I

have omitted all mention of *evergreens*, for screens and hedges, and perhaps we may have a talk on that subject, when the thermometer rises above zero, should any such good time come.

Your friend, H. F. FRENCH.

Exeter, Feb. 4, 1852.

P. S. As a protection while a hedge is growing, or to strengthen the weaker kinds of hedges, two or three No. 9 *wires* may be drawn through them, attached to strong posts of wood or stone, at each end, with an occasional post of *tire iron*, between, set in stone blocks even with the ground. This is not expensive, and will stop any cattle, and the wires will not be seen.

AGRICULTURAL.

"Nathan, where *is* the shovel? Here I've been hunting long enough to do my work twice over, and can't find the shovel."

The farmer was wroth.

"I don't know where 'tis, father; *summers* about, I suppose."

The two joined in the search.

"Nathan, you have left the shovel where you have worked, I know. Why don't you always put the tools in their places?"

"Where is the place for the shovel, I should like to know, father?"

He could'nt tell. It had no place. Sometimes it was laid in the wagon, and occasionally accompanied that vehicle when harnessed in a hurry. Sometimes it was hung up with the harness, to fall down when not wanted, or get covered up when it was. A great deal of shoe-leather had come to naught by that shovel. It had at times more than the obliviousness of Sir John Franklin, and defied discovery. So it was with all the other tools. They would seem to vanish at times, and then come to light rusty as old anchors.

The farmer's barn was crowded. He had no "spare room" there. There were several in his dwelling. But the barn was always crammed—it was a kind of mammoth sausage—stuffed every year. So there was no room for a special apartment for the tools. In his imagination he never saw his hoes hung on a long cleat, his chains all regular in a row, his rakes and his long forks overhead; certainly he was never anxious for such a convenient room.

Why?

His *father never had a tool-house*, and his father was called a good farmer.

So he was, then—in his day—but there are better husbandmen now, let me say, and I desire to shock no one's veneration.

Did they find the shovel? No! they might as well have searched for the philosopher's stone, seemingly. Nathan started for Mr. Goodman's to borrow one. Their work *must* be done, and borrow he must.

"I don't know as you can *find* one in *my* tool-house," replied Mr. Goodman.

Nathan noticed that he bore down on some of his words like a man on a plowbeam. Didn't he mean something? Nathan went to the tool-room thoughtfully. A door on wheels opened with a slight push, and there were Goodman's tools—enough, Nathan thought, to equip a company of Sappers and Miners! Hatchets, axes, saws, tree-scrapers, grafting tools, hoes, diggers, shovels, spades, pick-axes, crow-bars; plows, harrows, cultivators, seed-sowers; sieves, trowels, rakes, pitch-forks, flails, chains, yokes, muzzles, ropes, crow-twine, baskets, measures,—all were there, neatly and compactly arranged. It was Goodman's *ark*—to save him from the *deluge* of unthrift!—Here every night the tools were brought in and wiped clean and hung up in their places. The next morning a job could be commenced at once. Goodman knew. He partitioned off a large room in his new barn for tools. It was central and easy of access. It was a pleasant place for a visitor; the tools were the best of their kind. Every new shovel or rake, or fork, before used, was well oiled with linseed oil, which left the wood smooth and impervious to water. Goodman frequently says, 'I had rather have the few hundred dollars I have spent for tools so invested than the same in railroad stock. It pays better."

Now there is no patent on Goodman's plan, and I hope many will go into it:—the more "successful mitations' the better.—B.—*Concord, Mass., Feb.* 3, 1852.—*Commonwealth.*

OIL FROM ROSIN.

The idea of producing oil from a substance like rosin, seems at first strange; and before chemistry had disclosed to us the compound nature of bodies, would have been deemed nearly as chimerical as that of the transmutation of metals, held by the old alchemists. But the thing is done. A few days since, we were invited by Mr. L. Maynard, one of the directors of the Boston Oil Company, to visit their works at South Boston. The business of this company is the manufacture of oil from rosin, which was commenced in June, 1851. Three distinct articles are obtained from the raw material, viz.: spirits of turpentine, oil and pitch—the latter the residuum at the close of the process. The oil, which is the primary object, consists of three kinds, which are variously adapted to machinery, currying leather, and the preparation of paints. We are assured that all these are of superior quality for their respective purposes; that leather for which the oil was used in the currying process, has been made into boots and shoes and found to do as good service as that produced by the old mode; that for harnesses, and all the ordinary applications of oil to leather, is unsurpassed; that the kind prepared for machinery is preferred to the best sperm oil—the cost of the former being only eighty-five cents per gallon, while that of the latter is one dollar and thirty cents. A certificate has been given by Wm. M. Ellis, Chief Engineer of the U. S. Navy Yard at Washington, stating that he has subjected this oil to the most careful tests, and that he finds it fully equal, if not superior, to the best oils that have been used in that yard—viz.: winter-strained sperm, and pure neat's foot oil. He states that on bearings or journals running at high velocities, "there is not the slightest appearance of the formation of gum, and the oil appears to be better diffused and to remain much longer on the bearings than the sperm oil." Mr. Souther, of South Boston, gives similar testimony, and states that one application daily of the "Boston Oil," keeps his machinery in better order than two applications of sperm oil.

It is a beautiful article, without any disagreeable taste or smell. The process of manufacturing

was invented by Louis S. Robbins, of New York, by whom a patent of it has been secured.—*Boston Cultivator.*

For the New England Farmer.

KEEPING FRUIT—INQUIRIES.

Mr. Editor:—Having had no experience in testing the various modes of keeping fruit, I wish to obtain your advice in regard to the situation of a fruit (*a.*) cellar; whether you would give it a northern or a southern exposure. I have in my orchard a small hill, on three sides of which I can situate a cellar and get a convenient outside door. Which of the three would you advise me to use expressly for fruit? I am about two miles from Lake Ontario, and we are subject to much wind from the west; and in airing the cellar on the west, may I expose the fruit to frost. Will there be any advantage derived by building a hollow wall? I have now about forty acres of orcharding and mostly spring fruit, and I should like to be able to keep it till spring. Any suggestion you may be pleased to make in regard to the accomplishment of that object, will be most gratefully received.

I design to put out about a thousand dwarf pears in the spring, and the White Doyenne (*b.*) being a favorite pear in New York, I have thought, on that account, I should like to cultivate them if they will do well on the quince. I would ask also if the Bartlett (*c.*) will do as well on the quince? I have about forty growing on the pear stock, and have been induced to think they were not very hardy in this locality. I do not like yet to give them up. Yours, respectfully,

W. H. Rogers.

Putneyville, Wayne Co., N. Y.

Remarks.—(*a.*) Apples keep best in a cool, damp cellar. In a recent conversation with Mr. E. W. Bull, of Concord, in this State, one of the most intelligent cultivators of fruit among us, and whose accuracy in horticultural matters is refreshing, he said he had found apples perfectly sound in his cellar long after their usual season, although water had constantly stood in the drain, which was one foot deep, near the wall, all around the cellar—the soil being a heavy loam. In another cellar which he occupied, the earth being a dry, sandy loam, all kinds of fruits and vegetables decayed early.

A double wall in a fruit cellar is hardly necessary. A large cellar under a building—damp, but not wet, and furnished with ventilating tubes to admit the cold air when necessary, so as to keep the cellar nearly down to the freezing point, would keep fruit better than any other place, excepting, possibly, an ice-house, which it would nearly resemble.

With regard to the aspect of a cellar, we should prefer an eastern or northern exposure; and double doors, that is, two doors two or three feet apart, would be of great service in preventing an access of air in the warm season.

From the fact that apples have been kept two years in a sound state by packing in plaster, thereby wholly excluding the air, it would not seem to be necessary to ventilate the cellar for any other purpose than to regulate the temperature.

(*b.*) The White Doyenne pear, we believe, does well on the quince, in all locations. It does well on the pear in New York, on the testimony of Mr. Downing—which is good authority.

(*c.*) The Bartlett does not succeed perfectly here on the quince. On its own roots it is sometimes tender, though a great grower. It would probably do best grafted on full grown trees of hardy and vigorous habit. Treated thus, they have proved hardy in localities where they could not otherwise be grown.

For the New England Farmer.

AGRICULTURAL LECTURES.

The public has already been apprized that a course of lectures would be given at Albany, the present winter, on sciences connected with Agriculture. The lectures, which are given by professors in the University, commenced on the 13th of January, under favorable circumstances. A class of some thirty-six young men from various parts of the State are in attendance, and if they do not return to their homes at the close of the term, viewing the farmers' *profession* in a new and enviable light,—fairly in love with its beauties, it will be no fault of those who teach.

And supposing they do go home altogether wiser than they were, who will for a moment suppose but that the knowledge they gain will turn to so practical an account, that its benefits will show themselves before another winter will whiten the fields with snow? The consequence will be, they will be anxious next winter to return to the fountain whence they were refreshed, and a host of others seeing the thing is no humbug, will be anxious to go with them.

And so the State of New York has set a new ball in motion for the benefit of farmers, by opening facilities for them to acquire the knowledge which the complicated nature of their calling so vigorously demands. And this ball will roll on, propelled by the enterprise of her citizens, until its influence will be universal through the State.

An experimental farm will probably be secured the present season, where practice will illustrate the beauties of science for the benefit of her sons; and in troth, we believe that at no distant day, she will have at least one experimental farm, in each senatorial district, fully equipped with its teachers and all the paraphernalia necessary to its success. Surely New York is a *great State*. Great in her territory, vast in her resources, but greatest of all in the expansive views and enlightened liberality of her sons.

Where is our agricultural school in Massachusetts? Fifteen months ago we had one in prospect with much more certainty than the State of New York. The able report of the commissioners on the subject fully explains the utility of the thing. Many in different parts of the State were anxious to see the experiment in a way of solution. But *when* shall we see it? Evelyn.

☞ No man has ever regretted that he was virtuous and honest in his youth.

For the New England Farmer.

THE BALDWIN AND DANVERS SWEET.

Mr. Editor:—Mr. Fowler, in his remarks upon apple trees in a late paper, speaks with distinctness, of those excellent varieties, the Baldwin, and the Danvers Sweet. Of these, Massachusetts has great reason to be proud, as they are, all things considered, among the varieties most worthy of cultivation.

In speaking of these, there is danger of confusion as to their original locality. Mr. F. says, that a monument has been erected at Somerville, *where* the Baldwin was first discovered. Is this so? I had always understood that the Baldwin was first brought into notice by the late Col. Baldwin, of Woburn, father of Loammi Baldwin, the eminent civil engineer; and that it was found by him in the town of Burlington, adjoining Woburn. I have heard those speak of this fact who said, they had seen the original tree in bearing condition. Possibly, it may have been otherwise, but quite certain am I that such has been the tradition. If Mr. F. has seen the *monument*, of which he speaks, and can show it with an unmistakable inscription thereon, I shall be satisfied. You, sir, who have your home in the country that gave birth to the Baldwin, are called on to define its precise locality. It is no less important to the grower of fruit to know this than it was in olden time to determine what city should have the credit of producing a Homer.

As to the Danvers Sweet, we know the town and the farm on which it originated. I have been familiar with it from my earliest years. It was owned by Daniel Eppes, Esq., at the time of the discovery of the tree from which so many good apples have proceeded, and which now continue to refresh all lovers of *apples and milk*, (than which few better dishes can be found.) This apple holds its original character with great distinctness. It has not the variety of shades that mark the Baldwin—it is unmistakable. Perhaps, like all other fruits, modified somewhat by the strength of the soil, or exposure to the sun; for all fruits are benefited by a fair exposure to light and heat, as well as the animal creation. How far these fruits have been, or are liable to be modified by the stocks on which they are *budded* or *engrafted*, is an inquiry beyond my power to answer. If the stock does not have some influence on the quality of the fruit, I should think it very strange—but that it does, I am not prepared to assert. If it does, then we can never be certain of continuing any particular variety of apple for any considerable length of time. It would seem from Mr. F.'s observations, who resides near where Gov. Endicott's orchard was, and where his *pear tree* now is, that there still remains *one variety* of apple that was cultivated by the governor. I have seen the apple; it has nothing of aristocratic character, but the fact that it came from the governor's orchard. There is one other apple that originated on the same farm with the Danvers Sweet, but little known to fame, commonly called a *fall-harvey*, little less worthy of celebrity. Wherever known, at the time of its maturity, it has a preference to most other apples for table use. I remember to have seen in the mill of one of the largest farmers of this place, who died about *one hundred years* since, that *a bushel of Harvey apples* should annually be given to his wife so long as she remained his widow. Presuming, I suppose, if she married again, that her husband would supply her with *good apples*, as well as other comforts. P.

Danvers, Feb. 8th, 1852.

Remarks.—The question is still unsettled as to where the Baldwin originated. Cole's Fruit Book says "Wilmington and Tewksbury seem to have an equal claim to its origin." Some further notice will be taken of it at another time.

VARIETY IN OCCUPATIONS.

One of the broad marks of distinction between this and other countries, is found in the readiness with which our citizens adapt themselves to changing circumstances. The fact that we can *turn our hands to anything*, gives full assurance of permanent prosperity and independence. It results mostly, perhaps, from education. In England a seven years' apprenticeship is required, before one is allowed to exercise a trade, and this arbitrary requirement, tending, as it does, to keep men in ignorance of every thing but this one occupation, holds them in a sort of bondage.

He who knows only how to *weave*, must, of necessity, be the dependent of the owner of the *loom;* and he who knows only how to use the spade, has ever been the serf of him who owned the soil. The *spirit of unrest* with which we Yankees seem inspired, has doubtless been, in some respects, productive of evil. It has drained New England of many of her enterprising sons, who might have remained at home, and by a more thorough cultivation of her soil, gained the comforts and luxuries of life which they have in vain sought, in their pursuit of the *setting sun*. Cooper, in one of his novels, says, "The prospect of Heaven itself would have no charms for an American of the backwoods, if he thought there was any place *farther West*."

Still, the consciousness, that the world is open to him, to go *where* he pleases, and *do what* he pleases, for a business, gives strength and manliness to the character of the American.

The idea is fast becoming obsolete, that a man has capacity but for one pursuit. It has been ascertained that intense application to one study, or constant straining of the mind in one direction, like the continued exertion of one set of muscles is injurious to the whole system. This is true of scientific pursuits, as is well illustrated by the case of one of our own countrymen, who recently became deranged, upon the discovery of a new method of taking the longitudes. His mind had been overtasked, and lost its balance, at the moment of success.

It is true of mercantile pursuits. A counting-house clerk, or merchant, who has no other object of interest than his books and ledgers, becomes a *one-sided* man, a man of dollars and cents, who, to use the language of another, "can see nothing very

beautiful that is not at the same time very lucrative."

The true remedy for these difficulties is to mix up a little *farming* with your other affairs. Have your dwelling a few miles from the city, and take fresh air and exercise instead of medicine. In the country, especially, every man should have land, and be interested in its culture, not as a matter of pecuniary profit to himself, but for his health of body and mind; and for the advantage of those around him. Some of the best farmers in New England have been among professional men. The old order of ministers were all farmers, and furnished their parishes the best examples of systematic and scientific husbandry, and the best illustration *that intellectual culture tends always to promote the best culture of the soil.*

They were in advance of the people, as well in the science of husbandry, as in general attainments in learning, and their daily life of mingled physical and mental labor, their quiet and unselfish *living out* the pure principles of the Gospel, were sermons more powerful for good, than the speculative Sunday discourses of some of their successors, who are in a more literal sense "set apart to minister in holy things." In the days of political trials no purer or readier patriots were found, than they who labored through the week on the lands of the Parsonage. The country *physician* is always a farmer, and usually scientific and successful. His studies lead to a knowledge of chemistry and of the laws of animal and vegetable life, and give him a taste for agricultural pursuits. Many of our *lawyers* of the first rank, are rendering valuable aid to our cause. The present Secretary of State has done good service to his country on his farm in Marshfield, and his home in Salisbury in the Granite State.

Indeed, there is room enough in the business for all, and often he who pursues it, not as his principal employment, but as an amusement, may, by strict scientific investigation, and by experiment which may result, to him, in pecuniary loss, make his recreation of substantial benefit to his fellowmen.

ACKNOWLEDGMENTS.

Pears.—Pears from "H. H. W.," Lowell, are of fine flavor, and we should think well worthy of cultivation. The specimens sent were too much bruised and discolored to afford any fair opportunity of fixing a name for them. If you will send a specimen on a twig of the tree with leaves, we shall be able to say whether it belongs to any of the varieties now among us.

Apples.—The large, green, beetle-headed apple from friend Sheldon would make an excellent substitute for the pumpkin to be fed to stock.

The smaller apples with a beautiful blush on one side are undoubtedly the *Tolman Sweet*. It is very productive, but not remarkably rich to our taste. There are plenty of varieties much better than this.

FARMING IN OREGON.

The following extract from a private letter, giving some account of the Agricultural capacities of Oregon, we copy from the *New Bedford Mercury*:—

Tualatin Plains, (Oregon,) Nov. 23, 1851.

Oregon is an extensive farming country, with a rich and fertile soil; the climate,—so far as my experience has extended,—is one of the most healthy in the world. I have not been sick, even for a day, since my arrival here, and I know of hundreds of others whose health is equally as good. The large and extensive prairies are interspersed with timber sufficient for fuel, fencing and building purposes.

The wheat grown here is superior to that raised in any other part of the United States; it never rusts, and it is not troubled by insects. Wheat yields from 25 to 50 bushels; Oats from 30 to 40, and Potatoes from 150 to 400 bushels per acre. Oats are now selling for $1, Wheat for $1,50, and Potatoes for $1 per bushel.

We raise what is here termed two "voluntary crops." The land is prepared and sown in the fall, and the next summer it is harvested, and the grain scattered in harvesting will seed the same field for the two succeeding years.

The largest proportion of the population here is from the Western States, and they are far behind our Yankee farmers in the science of tilling the land. The climate is much warmer here than in New England; grass is now some six inches high, and strawberries in full bloom; in fact some few ripe ones have been gathered. All kinds of mechanical labor is in good demand, and a few wheelwrights, carpenters and blacksmiths, would find constant employment and high wages. If you have any unmarried ladies within the circle of your acquaintance, just tell them to make tracks for Oregon; it is the place for them—they may be sure of an offer of marriage as soon as they arrive. If they accept, they will find loving husbands, and a happy and comfortable home; if not, they will find constant employment at from $30 to $50 a month, and boarded at that. It is the place for Yankee girls—*God bless them!* I could find husbands, and good ones, too, *for fifty in as many minutes.*

Measurement of Irish Potatoes.—The *Leonardtown* (Md.) *Beacon* urges that the Legislature should pass a law regulating the measurement of Irish potatoes. The practice now is to heap the half bushel as long as the potatoes can be piled up, or to measure them in a flour barrel, heaping the barrel and allowing it to hold two and a half bushels. This, the *Beacon* contends, is doing great injustice to the farmer. In fact, it says it is robbing him of at least one-fifth of his just due, or one bushel of potatoes out of every five.

Remarks.—Potatoes should be bought and sold by *weight*, as should all the grains and meal. Purchasers of potatoes "by the small," as they say at the South, pay extravagant prices for them. The price is as easily regulated by the pound as by the bushel.

APPLE TREE PLANTED BY PEREGRINE WHITE.

Peregrine White, the first English child born in New England, lived in the eastern extremity of Marshfield, where also he died, in 1704, at the age of 83. His farm is still in possession of a descendant of the fifth generation, by the same name. On these premises stands the celebrated tree represented in our engraving. Tradition says it was planted about the year 1648. The writer recently visited it, and found only the right hand branch standing; this appears to be a vigorous shoot from the old stock; the residue of the tree, being partially decayed, has been removed. The owner states that, as far as his memory extends, the tree has produced fruit almost every year without interruption. The apples have a superior flavor, being a pleasant sour, and of a beautiful red color. When perfectly ripe we have rarely ate a better apple.

Would the reader secure the blessing of coming generations, *let him plant a tree.*

We are enabled to present the above interesting engraving and description, through the kindness of Messrs. Stone & Pratt, proprietors of the *Mother's Assistant and Young Lady's Friend*, a work which we have read for many years with interest and profit.

Everything that relates to the Pilgrims, their immediate descendants, or the times in which they lived, is still attractive to the people of all parts of the country. This tree is now over 200 years old.

THIRD AGRICULTURAL MEETING,

At the State House, Jan. 27, 1852.

Subject for Discussion—*Plowing and Kindred Operations.*

At the meeting on Tuesday evening, His Excellency Gov. Boutwell presided, and on taking the chair made a few remarks upon the influence of the occupation of farming on the health and life of those engaged in it. He said a system relating to registrative returns would be calculated to give the agricultural interests of the State more confidence so far as regards pecuniary advantages and moral and physical health. Individuals engaged in mercantile or mechanical pursuits may gain more money, but put life to life, and take into consideration health and longevity, and the farmer in reality receives as much compensation for his labor as any other class. These are facts well-established, and they give additional importance to his pursuits.

The discussion of the subject before the meeting was commenced by Mr. Proctor, of Danvers. It lies, he said, at the foundation of all agricultural improvements, and as it is the first of operations on the farm, so it would be found to be most im-

portant; one with which every person working upon a farm must have more or less acquaintance, and which but few fully understand. He was confident that the more any man investigated the subject, the less confident would he be in his knowledge in regard to it—the more would he find to be learned respecting it. He was satisfied that there is great room for improvement as respects the ordinary practice of this department of husbandry. As ordinarily practised it is found quite too shallow, and he would suggest that every farmer may find upon his own farm a demonstration of this fact. Take the garden spot which is prepared with special reference to securing a much larger yield than is expected from the ordinary field, by increased and deeper pulverization. The farmer expects as a result of this extra labor, to raise from two to three times as much as from the same amount of ground in his ordinary field, and expects it because of the better preparation of the ground. If he would apply the same preparation to his fields he might double his crops. The complete pulverization of the soil is the essential consideration for good culture. This practice we learn from other countries—from England and from Holland. The great crops there obtained are the result of perfect pulverization. Gardeners in this country who raise vegetable products have realized from one to two and even three hundred dollars an acre net, mainly from perfect cultivation. Here he mentioned a fact which came under his own observation in Beverly, in Essex County, where a practical man named Mason, raised on a two-and-a-half acre lot, 18,000 cabbages per acre, the net receipts for which averaged $450 an acre. This was done by extra care in cultivation, and the use of a compost manure of his own manufacture.

There were, he said, many things in connection with plowing which might be suggested, which are not now fully understood. First—what width shall be given the furrow-slice? Of late, the tendency has been to make it as wide as possible in order to save time; and this tendency has increased sometimes until it is made from 14 to 16 and 18 inches wide. In this way the land could be plowed soonest, but would it be the best manner? He thought not. The furrow-slice should be made as wide as can be turned completely over and made to lay flat, and no wider. With a furrow 8 inches in depth, 10 inches in width would be sufficient—or at the extent, twelve inches in width. Another point is—how shall the furrow be laid—flat or set on edge, at an angle of 45 degrees? This would depend upon what the land is to be used for—if for grass, it would be better to have it flat. If it is to be broken in pieces so that the air may penetrate it, it would be better to set it partly on edge. So it is not in our power to lay down any rule, except in connection with the use to which the land is to be applied. Another question is, what kind of a team is it the most profitable to use? Here a great variety of opinions exist. In Worcester county, the published opinion is in favor of one pair of cattle only, without a driver—and only this kind of team is encouraged at the plowing matches. Such, however, is not the practice throughout the county, or in other counties. In most counties where they plow grass lands to the depth of 8 or 9 inches (and it should never be less than that) they use at least two pair of cattle. Many use one pair and a horse. So far as he had any opinion upon the subject, he thought the best team was a horse and a yoke of cattle, or two pair of cattle. The additional power which this team possesses, he believed was better applied in deepening the furrow than to be omitted. A horse and one yoke of oxen might be trained to be driven by the plowman, and thus the expense of a driver saved; but with two pairs of cattle this is seldom done.

Mr. Proctor, in conclusion, alluded to the *kind* of plow used as another important consideration. The "Michigan Sod and Subsoil Plow" he recommended very highly. It is so constructed as to turn two furrows at the same time. The theory is to lay the sod to the depth of three inches, perfectly flat, and then turn up some five inches of earth upon it. This he had seen done to perfection in a furrow 8 inches deep and 10 inches wide. It is guided with more ease than the ordinary plow, because it balances itself. In regard to the amount of power required to operate it—he had seen it fairly tested with a dynamometer, and the result was that it was drawn without any additional power than was necessary to operate a plow cutting a single furrow. A practical farmer who had used it, told him that he considered land operated on one year by this plow, as well fitted for the seed as land operated on two years by the ordinary plow. If this is so, the matter is worthy the attention of farmers.

Mr. B. V. French, of Braintree, next addressed the meeting strongly in favor of the complete disintegration or pulverization of the soil. First, he asked, what are we to gain by this, over the common methods of culture? In his first efforts at orcharding, he remarked in the hearing of an able gardener that with two men he had set out one hundred apple trees in a day. The gardener looked astonished, and said, why, I set out ten trees in a day with eight men and worked hard at that. My trees, said Mr. French, cost me about two cents apiece to set them, and his cost him about eighty cents. His trees were trenched two feet in depth and ten feet in diameter. Sometime afterwards Mr. French went to see these trees and was satisfied that the gardener's husbandry was the best. He also alluded to some very extra pears, which he saw in New York State, and which gained their superior quality by deep trenching the

ground. A cane could be run down into it, its whole length. A gentleman who recently visited some of the prominent gardens in the vicinity of London, writes that they are trenched four feet deep and that 16 cords of manure are applied to the acre. An English gentleman recently in this country, stated that our farmers do not plow enough—they manure higher than English farmers do, but they don't plow deep enough. In regard to subsoil plowing, there is a mistake prevalent in the community. Some think if they plow once, the work is all done. They should bear in mind that they have but just moved the earth and not brought it up. If it is on the sod it is best that they should not bring up the subsoil the first year. The next year they may bring up one or two inches—and so on each year until they get down 18 or 20 inches. The most thorough mode of pulverizing the soil is by trenching. Of the expense of this he had made a calculation, the result of which was, that it would cost $100 an acre, to trench it two feet deep, and this he believed would be in the end more economical than the ordinary mode of plowing. Persons would be surprised to see to what depth the small fibrous roots of plants descend. He believed that at 62 1-2 cents a rod, (or $100 an acre) most any land might be trenched, and that it would be a good investment. In regard to the time of plowing—he thought the land should be tolerably dry before plowing is commenced. If not, the land becomes caked. The best time he had found, was, to take off the hay one day, and plough the land the next. This would be sure death to all vegetable matter. Compost might then be applied with a little bone, and salt to kill the worms, and then a good crop of turnips for cattle might be gathered. In conclusion, he spoke highly of the operations of the Michigan subsoil plough.

Mr. Brown, editor of the *New England Farmer*, hoped that some gentleman thoroughly acquainted with the practical operations of the farm, would express an opinion upon the question of *frequent* plowing, whether it was advisable or otherwise. A diversity of opinions exist on this point, and the knowledge gained by those who have made experiments, should be made public. If land can be made fertile by frequent plowings, it may be better to resort to this practice, than to purchase special manures.

Mr. Brooks, of Princeton, spoke of plowing as a useful and necessary operation, and said the question was, under what circumstances shall we plow shallow or plow deep? His own opinion is that the operation of plowing is one of exhaustion —that the more frequently land is plowed, the more it is exhausted. If he had a virgin soil which produced a new crop, he should plow it shallow, because if he threw up too much of the fructifying substances,—more than was required by the crop, they would be lost. When that was exhausted, he would plow deeper, but would not descend too fast. It would be better to apply a little more manure. He had no doubt a larger crop might be got by deep plowing, but it would be a money losing operation in the end. In regard to the furrow-slice, no theory applicable to all cases could be given. On dry land where he plowed shallow, he should lay it flat, because the sod laying flat upon the earth, would become more moist—the water of attraction would rise up and the rain run down more readily.

In a moderately moist soil he would lay it at an angle of 45 degrees; in a very wet soil he would lay it edgeways. The philosophy of subsoiling he understood to be that it deepens the soil, and allows the rain to descend more easily; and also the water of attraction to rise more readily. He did not understand how subsoiling could make land moist in dry times, and dry in wet times. Subsoiling on dry land he considered injurious. It may be useful on some poor sandy plains, such as he had seen in New Hampshire, where the soil was a sandy loam based upon a hard pan. In such cases it might be used to advantage, as it would turn up saline substances which are not in the soil. By trenching, large crops might be raised, but it is a forcing operation, and is it on the whole lasting and profitable? This is the main question. Can it be done broadcast through the land? He thought not. He thought the Michigan plow might be useful; still it is not good policy to turn up too much of the subsoil. He thought it would be a better course to drain the land. The depth to which land should be plowed, and also the kind of plow and team to be used, would depend very much upon the character of the soil to be operated upon.

Mr. Hubbard, of Sunderland, dissented from some of the views of Mr. Brooks. There was nothing incompatible in the theory that subsoiling would aid a crop in a dry time, and at the same time be beneficial in a wet time. When the soil is loosened to the depth of two feet, the rain which, after a shower, would stand upon the earth if it was not thus stirred, is absorbed and sinks out of the reach of the plants, while, if it remained on or near the surface, it might damage them. And then in a dry time by the same principle—that of capillary attraction—it hastens to escape to the surface. Before the hard pan was broken, the water would have great difficulty to permeate through it. It would operate like a cast iron floor, and might detain the water so long as to injure the plant. And so again, when the surface of the earth is parched by the sun, the hard pan, if unbroken, would prevent the roots of the plant from drawing moisture from the soil beneath.

[Mr. Brooks here suggested, that if the water descended into the earth it must come back by at-

traction, and under the influence of evaporation, producing cold and injuring the plants.]

Mr. HUBBARD illustrated his point in this manner. Take a sponge and dip one end in a dish of water—by the power of capillary attraction the water will soon rise above the water in the dish and fill the sponge. The sun rises and shines upon the sponge and the top becomes dry by evaporation, still, by the power of this principle a portion of the sponge is kept damp. When the sun goes down the water comes up and wets the whole sponge again. So if the land is not broken below six inches there will be no water there, and in consequence, in a few days the plants will cry out for water; but if the subsoil is broken up there will be a reservoir there which will last these plants many days. Mr. Hubbard approved of trenching for fruit trees, and thought it might be used to great advantage. He was also in favor of frequent plowing—and mentioned the experience of the President of the Hampshire County Agricultural Society, who by simply plowing and re-plowing and sowing a few seeds of clover, had brought land very much reduced into good bearing condition. Land that cost him $10 an acre, prepared in this way, he could rent more readily than good meadow land worth $150 an acre.

In conclusion, Mr. Hubbard alluded to the constituents of plants, 90-100ths of which he said were organic, and 10-100ths inorganic. The inorganic are all volatile, and are flying about in the atmosphere in the shape of gases. By plowing, these elements are absorbed and put in a condition to unite with the plant and give it substance, and at the same time the land is restored to a condition of health, and made capable of supporting vegetable life.

Mr. WALKER suggested as another reason in favor of subsoiling, the theory of Professor MAPES, that by stirring the soil the circulation of the air through the soil is increased. All the vapor in the atmosphere is condensed as it passes through the soil, and as it becomes dry comes out of the ground, and other air goes in.

Mr. BROOKS, in allusion to Mr. Hubbard's remarks respecting the improvement of poor land by plowing, thought that in the case mentioned quite as much benefit resulted from turning in the clover as from the plowing. He had manured his land by plowing in clover crops. In regard to manuring the land as suggested by Mr. Walker, he did not think his theory was based upon good philosophy. It was not good philosophy to say that the same air would descend into the earth and displace the cold air. It would be found a fact that where water stands on a meadow, at two feet below the surface, the water would be colder than the water on the top.

Mr. WILDER, of Dorchester, agreed in all that had been said in favor of a complete pulverization of the earth by subsoiling and trenching. But whether it was best to trench at an expense of $100 an acre must be determined by the location of the land. He was in favor of frequent plowing, and also spoke warmly in favor of the Michigan plow. It turns up those substances which become the food for plants. An experiment made with this plow resulted in getting from an acre of land which previously bore but 15 bushels of grain, a crop of 55 bushels.

Mr. HOWARD, editor of the *Boston Cultivator*, was called upon to give some statements in regard to an examination of the Michigan plow, which was made at Albany some year or two since. He said the committee did not recommend the plow for general use, but for certain special uses—first, for a hard, stiff soil, where the substances comprising the nutriment for plants were found at a great depth: the other was, as a substitute for trenching or plowing where vegetable fertility was contained to an unknown depth, and which, when brought up, will produce as good a crop as the top soil itself. Subsequent experience had been in accordance with the views taken by the committee at that time.

In regard to the subject which had been discussed during the evening, it was quite obvious that gentlemen viewed it from different points, and therefore came to different conclusions. The rules for plowing would have to be varied according to the composition and texture of the soil to be worked. In regard to subsoiling, it had been thought a mystery how it could prove a protection against both rain and drought. It is evident that plants suffer most from drought in dry, tenacious soils, and if by drainage, or deep plowing, the soil can be kept open, its absorbent powers are greater, and it attracts more moisture from the atmosphere or more from below, as the case may require.

The subject for the next meeting was announced as—*Agricultural Education and the Improvement of Agriculture.*

☞ We learn from the *Agricultural Journal*, published at Montreal, that the British government has granted $20,000 for the establishment of a Model School and Farm near Limerick, Ireland, and that similar schools and Model Farms are being established in every county in Ireland, and are reported to be doing a vast amount of benefit to the country.

Let us profit by these timely hints, and start *one* at least and see how it works.

☞ Will the Editor of the *Agricultural Journal*, Montreal, be kind enough to send us whatever publications have been made in relation to the *Model Farm* at La Tortue; but particularly the plan of Mr. Ossaye for the management of the farm.

THE OLD FARMER'S ELEGY.

BY JOSIAH D. CANNING.

On a green, grassy knoll, by the banks of the brook,
That so long and so often has watered his flock,
The old farmer rests in his long and last sleep,
While the waters a low, lapsing lullaby keep.
He has plowed his last furrow, has reaped his last grain;
No morn shall awake him to labor again.

Yon tree, that with fragrance is filling the air,
So rich with its blossoms, so thrifty and fair,
By his own hand was planted; and well did he say,
It would live when its planter had mouldered away.

There's the well that he dug, with its waters so cold,
With its wet dripping bucket, so mossy and old,
No more from its depths by the patriarch drawn,
For "the pitcher is broken," the old man is gone.

'Twas a gloom-giving day, when the old farmer died;
The stout-hearted moaned, the affectionate cried;
And the prayers of the just for his rest did ascend,
For they all lost a brother, a man and a friend.

For upright and honest the old farmer was;
His God he revered, he respected the laws;
Though fameless he lived, he has gone where his worth
Will outshine, like pure gold, all the dross of this earth;
He has plowed his last furrow, has reaped his last grain;
No morn shall awake him to labor again.

AGRICULTURE---STATISTICS.

BY HON. EDMUND BURKE.

In pursuing this branch of my subject it is only necessary to add, that after man had resorted to agriculture as the best and surest means of supplying his wants and necessities, the great art from that time continued to improve and progress until it has arrived at its present state of perfection and importance. In all ages and in all nations it has been regarded as the greatest and most important of all the avocations in which man can engage. It has ever been the most essential interest of every community that has emerged from the hunting and pastoral state. It has employed more of the people, and more of the capitol, of every nation sufficiently civilized to practice the art of agriculture, than any other avocation or pursuit. It is the foster mother of manufactures and commerce. It supplies the raw material to one, and a large proportion of the subjects, or articles of exchange, to the other. We hear much of the importance of manufactures, of commerce, of banks, and corporations and the like. The public press teems with paragraphs, essays and disquisitions in relation to those interests. The halls of legislation re-echo with the clamors of their advocates. They clamor for the favor and protection of the government. They are distressed and demand relief. They are pinched for money, become frightened, and are afflicted with *panics*. If we may belive the public press, they are in just such a quandary now. And from the noise, clamor, distress, and panic with which those interests are afflicted every few years, the public mind has become impressed with the idea that those interests are indeed greater, more important, and more essential to the well-being of the country than agriculture; because agriculture is patient, quiet, and makes no complaint. Yet, the actual fact is, that all those interests combined,—manufactures, commerce and corporations,—are in no respect so vast, nor so important and essential to the welfare of the country, as agriculture. All of them combined do not employ so much capital, nor so large a number of the people of any civilized community, as agriculture. To establish this proposition, I will refer to a few facts which I find in the economical history of the three most productive and wealthy nations of modern times, I mean Great Britain, France, and the United States.

The statistics of our own country furnish similar results. Owing to some cause or other, we have not been able yet to see the results of the census of 1850. In 1840, according to the estimate of Professor Tucker, the annual value of the products of agriculture was $654,387,597. Annual value of the products of manufactures and the mechanic arts $239,836,224; or less than one-half the amount produced by agriculture. At the present time, the annual value of agricultural products cannot be less than $1,000,000,000, while that of manufactures will not exceed $400,000,000. The capital invested in agriculture, in the United States, at the present time, will probably amount to about $6,000,000,000, while that invested in manufactures will not exceed $500,000,000. According to the census of 1840, the whole number of persons employed as laborers in agriculture was 3,710,607, while the whole number employed in manufactures and the mechanic arts of all kinds amounted only to 791,545. Thus, in the United States, as well as in Great Britian and France, the great preponderating interest is agriculture. In all the countries which I have named, it is greater than all other interests combined, whether we regard the amount of capital invested, the value of its annual products, and the number of persons employed in, and dependent upon it. And in this country, if we could obtain even an approximation to the actual facts, we should find the agricultural interests greater in proportion to all other interests, than in England and France, inasmuch as the United States is pre-eminently an agricultural country.

I allude to these facts, not because I would disparage the great interest of manufactures and commerce; but, on the contrary, I refer to them and institute the comparison between them and agriculture which I have, only for the purpose of showing that the latter is the great predominating interest of all nations, and of impressing upon the minds of all who hear me, a correct and truthful idea of its transcendant importance, and of the high responsibility, dignity, and honor of the occupation of an agriculturist.—*Burke's Address at Unity, N. H.*

NATIONAL AGRICULTURAL SOCIETY.

The Pennsylvania State Agricultural Society, at its recent annual meeting, adopted a preamble and series of resolutions setting forth the great importance of the formation of a National Agricultural Society, and proposing the calling of a National Convention of Agriculturists at Washington, for the purpose of taking the initiative steps in the organization of a National Society. The following resolution will explain the means in which the friends of the measure are invited to co-operate, in carrying forward the project:—

Resolved, That all States or State societies willing to co-operate with us in this laudable enterprise are requested to inform the President of this Society of such fact; and so soon as five States

have so signified their willingness to act in the matter, then the President of this Society shall immediately, after ascertaining (by corresponding with the several State Societies upon the subject) the most suitable time for calling such Convention, fix on a time for the meeting of said Convention, of which he shall give notice in as many papers as may be necessary.

For the New England Farmer.

A MODEL FARM SCHOOL.

BY HENRY F. FRENCH.

The necessity of a better cultivation of the land in New England, is generally conceded, and all are agreed that more *knowledge* of the principles, as well as of the practical operations, of Husbandry, is the one thing wanting. We see one man raising fifty bushels of corn to the acre, while his neighbors raise but thirty. We see another raising thirty or forty bushels of winter wheat to the acre, while others fail to raise any. We see one man's apple trees bending under the weight of their fruit, yielding an annual income of *one hundred dollars an acre*, while his neighbor's orchard has proved an utter failure. We know that the average product of milk of the farmers' cows, is less than four quarts a day, for the year, while some milk-men get an average product, fifty per cent. greater.

Now this is either accidental, and beyond explanation, or else it is the result of different management; and no sane man doubts that it is the latter. One man succeeds better than another, in farming, as in every other pursuit, because he understands his business better.

How shall this knowledge, which gives abundant success to some, be diffused through the whole farming community? How can we teach the young men of our day, the best mode of managing their farms? The true answer is, by shewing them the best methods of cultivation and teaching them to perform, with their own hands, the processes connected with them—by making them thoroughly acquainted with the best farming implements, the best farm buildings, the different breeds of live stock, and their various qualities—by teaching them *system*, and habits of careful observation, and by making them understand the *reasons* of things—*the principles and science of Husbandry*.

We want a pattern before us—a model by which to work. Farmers are not thrown together like lawyers and manufacturers, so that they can see the perfection of skill, in the various departments of their business. They live separate and apart, and have not opportunity to meet and communicate with each other. There is wanted, in each County, a central point, at which may be collected all the various facts which interest agriculturists; where experiments may be carefully tried, and their results noted, compared and published. There is wanted a place where boys may be *educated to the business* of Farming, practically, as well as scientifically, so that they may carry with them throughout the State, a thorough knowledg of Agriculture, which shall not only ensure them success in life, but shall render them useful examples to other men.

To effectuate all the objects which have been thus briefly suggested, no plan seems to me so likely to prove successful, as the establishment, by the aid of the State of

A MODEL FARM SCHOOL.

Such a school should be, eventually, established, in each County in the State, but prudence would require, that the plan be first tested by the operation of one such school, before a system involving so heavy an expenditure, be fully adopted. In almost every State in Europe, Agricultural Schools have been established or aided by the government, and with such success, as to give to us great encouragement. The greatest obstacle to be overcome, in the old world—the general ignorance of the laboring classes—has long since, thanks to our common schools, been removed from our path. Hundreds of our young men, of all classes of society, would be found prepared, as well as anxious, to avail themselves of the advantages of such an institution.

I proceed to suggest a general plan for such a School, with no idea that it will be found anything more than a mere *text*, upon which other men may preach to much better purpose than myself.

LAND AND LOCATION.

Two hundred acres of cheap land, to consist of woods, pastures, swamps, pine plain, hills and valleys, the more diversified the better, and well watered. Twenty acres of arable land at first, is sufficient.

A location near a sufficient market for milk and vegetables is desirable for the first experiment, because it would allow of a more various culture, and a speedy cash return.

BUILDINGS, APPARATUS, STOCK AND TOOLS.

1. A building, with lecture and recitation rooms, chemical laboratory, and library, to accommodate fifty students, upon a plan capable of being conveniently enlarged, when we see how well the experiment succeeds.

2. A *dwelling-house*, on the farm, to be occupied by the principal and his family, and as many boarders as may be thought best. This may be a common dwelling, unless it should be thought advisable to board all the pupils on the farm, which would involve a much larger expenditure.

3. A *model Barn*, say 40 by 100 feet, with cellars fitted for manure, for roots, for swine, and winter store rooms for carts and other large tools. The barn should be constructed and fitted up, for all the various uses of a farmer's barn, in the most perfect manner.

4. A *Granary*, *Tool House* and *Sheds*.

5. The *Live Stock* must depend on the location and leading branches of Husbandry adopted, but it should be, in part, of *thorough bred* animals, so that the farm should exhibit specimens of all improved breeds, and thus furnish accurate knowledge in regard to them, and so that the pupils should be familiar with their various qualities.

6. The *Farm Implements* should be of the very best kinds in use.

7. The *Library* and *Apparatus* must at first be small, and be increased as rapidly as possible. The experiment might be commenced, perhaps, without either, especially if the school were in the neighborhood of scientific institutions. A thorough chemical laboratory must, eventually, be provided. The best agricultural papers, of course, should be furnished.

TEACHERS AND STUDIES.

1. A *Principal*, who should be a thorough practical farmer, familiar with all the details of farm-

ing operations, who had made Agriculture a prominent business of his life, and has tact and judgment to be the responsible head of the school. He should have the general charge of all the plans of labor, be accountable for all receipts and expenditures, and under the direction of a Board of Agriculture, to be constituted by the State, conduct all the affairs of the school.

He should be a man of education, *the more the better*, capable of communicating instruction, and preserving discipline, and with as many other high qualifications as can conveniently be found combined with the qualities enumerated!

2. An Assistant, competent to teach all branches pursued in the best academies. These two teachers should be capable of instructing in most of the branches to be taught. Occasional courses of lectures might be obtained from scientific men not connected with the school.

3. The *studies* would be in *general* education, a continuation of such as are pursued in High Schools, so that young men of sixteen or eighteen, could, after finishing their High School course, at the public expense, still advance in their literary and scientific pursuits.

But the leading feature would be instruction in *practical and scientific Agriculture*. And this involves Chemistry, Natural Philosophy, Natural History, Veterinary Medicine and Surgery, &c.

The *Mathematics of Agriculture*, such as farm accounts, surveying, draining, levelling, constructing roads and bridges, the mechanical powers, the uses and forces of water, steam, &c. &c., would of course be prominent studies.

PUPILS.

No pupil should be received, for less than one year, or under fifteen years of age.

They should be subjected to an examination for admission, by a board, independent of the teachers, and admitted only at stated periods, perhaps twice a year.

They would pay a tuition fee, of twenty or forty dollars a year, and pay also for their board. They should be *required* to labor on the farm three or four hours a day, in *all* kinds of farm work—to plow, hoe, sow, reap, mow, ditch, build wall and fence, tend horses, cattle, pigs and poultry. No hired laborer should be kept on the farm, (except females in the house) and the labor should be so apportioned, that each should take his turn in every department.

Any student who should labor more than the required time, should be credited liberally for the excess, so that he might defray his expenses thereby, wholly or in part.

These are the general features which seem best adapted to the wants and *the views* of the public. A far more extensive system is really desirable, and it is hoped will ultimately grow out of successful experiments such as are above suggested. A diffidence among farmers, about *taking what belongs to them*, alone prevents a rapid advancement in Agricultural knowledge.

The funds necessary to institute one experiment, should be appropriated by the State, to be expended under the charge of a Board of Agriculture. How this Board should be constituted may be left for consideration.

The Report of Dr. Hitchcock to the "Commissioners concerning an Agricultural School," appointed by the Legislature of Mass. in 1850, furnishes the best information on this whole subject, and I have drawn largely from it in this plan. I have endeavored, however, so to modify the various schemes there suggested, as to render them more simple, less expensive, and so, more practicable. It is hoped that the subject will attract the attention of all interested in this, our leading interest, and that it may be discussed fairly, fully, and with a single view to the public good.

H. F. French.

Exeter, N. H., Jan. 28, 1852.

REASONS FOR PLANTING AN ORCHARD.

BY EDSOM HARKNESS.

1. Would you leave an inheritance to your children? Plant an orchard. No other investment of money and labor will, in the long run, pay so well.

2. Would you make home pleasant—the abode of the social virtues? Plant an orchard. Nothing better promotes among neighbors a feeling of kindness and good-will than a treat of good fruit, often repeated.

3. Would you remove from your children the strongest temptations to steal? Plant an orchard. If children cannot obtain fruit at home, they are very apt to steal it; and when they have learned to steal fruit, they are in a fair way to learn to steal horses.

4. Would you cultivate a constant feeling of thankfulness toward the great Giver of all good! Plant an orchard. By having constantly before you one of the greatest blessings given to man, you must be hardened indeed if you are not influenced by a spirit of humanity and thankfulness.

5. Would you have your children love their home, respect their parents while living, and venerate their memory when dead—in all their wanderings look back upon the home of their youth as a sacred spot—an oasis in the great wilderness of the world? Then plant an orchard.

6. In short, if you wish to avail yourself of the blessings of a bountiful Providence which are within your reach, you must plant an orchard. And, when you do it, see that you plant good fruit. Don't plant crab-apple trees, nor wild plums, nor Indian peaches. The best are the cheapest.

BRITISH AGRICULTURE.

The following interesting summary of British Agriculture is prepared by the *Boston Post*, from a series of letters of the "commissioner" in the employment of the London Times.

He divides the area of England in 27 millions of acres of cultivated land, including meadow and arable pasture grounds, at 27s. 2d. per acre of rent, producing £36,675,000; two millions of acres uncultivated, at 5s. per acre, £500,000; three millions one hundred and sixty thousand acres of moor and mountain, at 1s. 6d., £237,000; making a total of 32,160,000 acres, and of £37,412,000 rent. The area and rent of the metropolitan county, Middlesex, are not included in this estimate.

Of the 27 millions of acres of cultivated lands, 13,332,000 acres are in grass and 13,667,000 acres are in tillage. Of the tillage land, one-fourth is in wheat; producing net (deducting seed) 10,244,700 quarters; one-fourth in barley, oats and rye, producing 15,771,825 quarters; one-fourth is in

clover, seeds, beans and peas, producing 3,701,740 quarters, and one-fourth in mangold, rape and fallow; total 29,718,275 quarters. The wheat produced gives a fraction less than five bushels to each individual of the present population. The average produce of wheat this writer estimates at only 26 3-4 bushels the acre, which is lower than it is commonly estimated at by about six bushels. It is a singular fact that the produce of corn of all kinds is estimated at two millions of quarters less than it was estimated by Arthur Young in 1770. The annual produce of corn, say 30 millions of quarters, may vary to the extent of one-fourth or 7 1-2 millions of quarters, by the effects of a cold, ungenial summer. Taking into account the falling off in the quantity and quality in cold seasons, and it amounts to eight bushels the acre. A late return as to Ireland shows a falling off in one year, 1847, of ten bushels the acre. It is not uncommon to see a falling off of five bushels, or an amount equivalent to the sustenance of one-sixth part of the population.

The whole land of England, it is well known, is held by about forty or fifty thousand landlords. They let to farmers either on leases or on a yearly tenure—the former system being preferred of course by the farmer, the latter by the landlord. The great proportion of English farms are cultivated on a tenure that may be terminated on either side by a six months notice. Still tenants, in many instances, do not scruple to invest a large amount of capital when years must elapse ere they can expect to get an adequate return in the improved value of the land. In these cases their sole reliance is on the character of the landlords, and their condition therefore is one of dependence. It is not always the case that the landlord is the gainer. When a tenant enters a farm, the value of the improvements made by the last occupant is estimated, which he has to pay for at the appraisal; and no little money has been made by shrewd farmers taking farms, "working up to a quitting," and, by connivance with the appraisers, getting a large profit when they leave in the difference which they demand above what they paid when they entered on the farm. This system leads to fraud, bad farming and political slavery.

There is great disparity of condition in the laborers on the farms. The highest rate of wages this acute observer met with in all England was in Lancashire, where 15s. a week was paid—the lowest was in South Wilts, where the wages were 6s. a week. The average rate of agricultural wages in England is 9s. 6d. a week—it being the greatest in the manufacturing and mining districts. The latter result is clearly shown by comparing the state of wages in those counties where manufacturing has most prospered. The wages in these counties has increased 100 per cent. since 1770. While in all the northern counties of England the increase has been 66 per cent., in some of the southern counties there has been no increase whatever—the wages being precisely the same as they were eighty years ago. There has been one thing, however, that has operated in favor of the laborer, adding immensely to his comforts, namely, the decrease in the price of food. This in the last ten years has been, in most articles he consumes, upwards of 30 per cent. In 1840, for instance, a stone of flour cost him 2s. 6d.; in 1852, 1s. 8d.; in 1840 good tea was 2s. 6d. a pound; in 1852, it is 1s.; sugar, that cost in 1840 6d. a pound, can now be bought for 3d. a pound.

The writer expresses great confidence in the ability of the British agriculturist to meet foreign competition; but to do it he must depend, not on legislative protection, but on individual energy; on improved cultivation, security for his investments, and a reasonable adjustment of his rent. He does not, however, go to the bottom of the whole matter—the abolition of entails, and the creation of a free and independent yeomanry—the owners of the land they cultivate with the right to bequeath them to their children.

WINTER SCHOOLS.

Many persons who have become distinguished for learning and great usefulness, never enjoyed the advantages of a liberal or college education. Living in villages and rural districts, their only opportunities for systematic study under the care of regular teachers, were during the three months of winter, each year. This term was found to be quite as long, in many instances, as the money would hold out to pay "the master," for which the good people had assessed themselves. But the studies during these short periods were pursued by vigorous minds in vigorous bodies. They were entered into with the whole energies of both, and long before ciphering or parsing began to blunt their desires and pall upon the senses they were called from the school to the plow; but, although away from the class teacher and the recitation room, they did not leave *their studies*. They only emerged from the contracted rules of men, into the boundless expanse of nature—into the field of first principles, to go through their recitations before the Great Preceptor of all, amid the breathing flowers of unfolding spring.

The *winter school* is the stepping-stone to intelligent labor in farming as well as to the professions or the quarter-deck. There often dawn the first longings after immortality, and the desires for usefulness and distinction are kindled into fixed principles for future action. It was there that the over-riding genius and ambition of Napoleon first manifested itself in commanding his forces at the snow fort, in the winter school at Brienne.

But the winter school, after all, is like an episode in a poem, turning the mind aside for a time, from the great school-room of nature, to a more limited course of thought. It is excellent in its way and as far as it goes; laying the foundation of the noble superstructure to be erected in after years. It must not be considered as sufficient, therefore, to satisfy the wants of the child, but only as a help to the studies which he is to pursue in all places and at all after times. He has only entered the vestibule—the rich treasures of knowledge lie hidden far beyond, and are only to be gained by unceasing application.

It is at the close of these schools that a great error is committed by many. There is a sort of

tacit compliance with the idea that when the school is closed, the studies are also suspended; books are laid away in some obscure corner, and the energy of thought which has been excited, is suffered to lie uncultivated and wasting.

Few persons realize how much may be done in a thousand pleasant ways at home. "Let a parent make a companion of his child, converse with him familiarly, put to him questions, answer inquiries, communicate facts, the result of his reading or observation, to awaken his curiosity, explain difficulties, the meaning of things, and the reason of things—and all this in an easy, playful manner, without seeming to impose a task, and he himself will be astonished at the progress which will be made. The experiment is so simple that none need hesitate about its performance." The first important requisite is, that there be mutual confidence between parent and child; then, in every season, and at every place, there may be such lessons and recitations as shall benefit both; imparting new facts and principles to one, and elucidating new views and giving them new force to the other. If at the barn, the boy may be required to give the principle of raising water by the pump, or some other question in hydraulics; if teaming or plowing, why the work is performed easier when the team is near the load than when farther removed; if in the morning, when the grass is sparkling with pearly drops, how dew is deposited; or, if in the silent and impressive evening hours, why he is chilled in passing the valley and finds again the genial warmth on ascending the hill? When around the fireside, daughters may state the principle upon which the smoke ascends the chimney, and why the air is warmest at the top of the room. At another time, why the "pitcher sweats" in the hot noon, or the "dough rises" in the pan.

By thus observing events as they pass, we are *always at school;* both old and young, teachers and pupils in turn. A new enthusiasm is daily kindled in the breast of each other, while new desires for improvement are awakened, and new sources for it are developed at each recitation.

Often call the attention of children to the scenes and objects about you. *Winter* has its impressive lessons in the dreary aspect which nature assumes, and naturally leads into an inquiry of the motions of the planets and the cause of cold. Nearly all the animals, save those dependent upon the care of man, have disappeared. A few tiny birds only, cheer the desolate scene. From whence did *they* come, and why linger amid these howling winds and driving snows? Have they escaped from the appalling cold of Arctic regions, and find this their temperate zone? These are inquiries of deep interest to the young, and profitable subjects of research. Then look at the forms of snow, examine the flakes with a magnifying glass, and find how past all human art, are the crystals of which they are formed, and how the wisdom of God is manifested in all his works.

The season of *Spring* is a school crowded with questions demanding answers. The swelling bud and springing leaf;—what secret power impels them? How gather nourishment, exhale, absorb, respire, digest and assume beautiful colors and forms? The friendly birds return. Where have they been? what oceans crossed and continents visited? how travel, by night or day, or both, and with only their own kind, or associated with others, and why did they leave us while their accustomed food was still abundant?

Summer, has its lessons, too; teeming with insect life, "each after its kind," a new world of wonder to the intelligent inquirer. It has

> ——"tongues in trees,
> Sermons in stones, music in running brooks,
> And good in everything."

Then *Autumn* comes, in sober russet clad, and perfects the work begun, teaching us to perfect ourselves as season after season rolls along. Thus, although the winter may be a season of peculiar privilege, all times afford opportunities for thought and improvement. Some of the most learned and useful men of the country have gained their knowledge midst the tools of their craft, and by diligent study during evening hours. That wonderful man, *Kossuth*, acquired the English language in prison, when it was supposed his spirits were crushed by the power of his enemies. Little knew they the iron will that sustained him, or dreamed that in the silent hours of his gloomy dungeon, he would acquire a power to electrify the world. The "Pilgrim's Progress" and "Holy War," of *Bunyan*, which find their way to every household, were also written in prison; and *Baron Trenck*, through tedious weeks and months, watched the artistical skill of the spider upon the wall, and wrote a work of wonderful influence over the imagination.

Thus, with a right frame of mind, with a spirit awake to everything around us, we are ever at school and move in the midst of teachers both earnest and eloquent. Burritt's school was at the forge, and Franklin's at the printing press. A young man by an old-fashioned fire-place, with a log fire, patiently applied himself through the long winter evenings (deprived of the winter school) —became a mathematician and a distinguished citizen, while his friend with equal natural endowments, and liberal aid, passed through the forms of learning in college, and fell as it were, still-born upon the world. A college is a good thing, but never can supply the place of a determined will. Without this will, to use the strong expression of Burns, they may pass the halls of learning, but

> "They gang in steers,
> And come out asses."

In this universal school we are to lay hold of all possible helps and take hints from all nature, both animate and inanimate, around us. Dr. Beecher says "that in no other way can so much varied, so useful information be imparted, and under circumstances so favorable for educating the child's mind, as through a judicious, well-conducted newspaper. Once, a liberal education could only be obtained by foreign travel. The sons only of the wealthy could indulge in this costly benefit. But now the poor man's son can learn as much at home as a hundred years ago a gentleman could learn by journeying the world over. It is the poor man's privilege to have the world come to see *him*. The newspaper is a great Collector, a great Traveller, a great Leeturer. It is the common people's Encyclopædia—the Lyceum, the College." It greatly aids conversational powers, gives ease to manner, and supplies a constant stream of useful, general intelligence.

But our last and emphatic injunction is—*Educate your Daughters*. For, after all, the education of the sons mainly rests upon the mother. And upon the intelligence and virtue of these sons will depend the perpetuity of our institutions and the progress and glory of this nation

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For the New England Farmer.

VEGETABLES FOR MILCH COWS.

Mr. Editor:—The pleasant discussion agitated, by your intelligent correspondent from Exeter, of the feed best adapted to *milch cows*, and particularly as to the value of *carrots* for this purpose, I have read with much interest. It would seem, that there need not be any difference of opinion, on a matter of so common occurrence. But still, on this, as on most other subjects, we find very different opinions entertained, by those of equal intelligence and observation.

In regard to *carrots*, it seems to be admitted by all, that they improve the *quality* of the milk, however it may be as to the *quantity*. It is also admitted, that they have a healthy and fattening influence on the animal that eats them. It is certain that they are palatable, for there is no class of roots devoured by the animals with more avidity. For many years have I been familiar with a stock of cows, kept for dairy and milk purposes, to which carrots have been fed more or less every year. Without any exact experiments as to their value or feed, the impression has ever been that they were equal to any other root. If this impression is erroneous, I should like to have it demonstrated. But I cannot relinquish an opinion, without well digested facts to the contrary, that I have cherished from my youth, and which was taught me by a working man of much practical observation.

I remember, a few years since, some of the best farmers of my acquaintance put forward the idea that *green corn*, cut and fed to cows in the months of August and September, when the feed of pastures came short, for want of moisture, was of little or no value. Coming from such sources, I thought there must be something in it; and that Pickering and Colman and others, who had encouraged the use of this article, as valuable for milch cows, might have been mistaken. Notwithstanding, opinions thus put forward, I find many careful men, who rely on their milk products, continue to grow corn for their cows. And I strongly suspect, that the same class of men will hesitate, before they discard the use of carrots entirely. Among the many projects of improvement now agitated, I know of no one more worthy the attention of careful cultivators than the comparative value of crops as feed for milch cows. Every family in the land is interested in this subject. No sooner does the infant inhale the air of Heaven, than some preparations of milk begin to be made for its nourishment, which preparations continue to be administered, in some form or other, while life lasts. Time was, when the potato was cultivated for the feed of stock; but of late the voracity of man is such, that few potatoes can be spared for this purpose, unless they are suspected of being impregnated with *the rot*. Turnips also, especially the ruta baga, have been cracked up, as excellent for milch cows; but there are those, who turn up their noses, when turnips are named, and say they cannot endure the taste of the milk of cows that have fed on turnips. Cabbages also come within the same category. If it were not for the peculiar flavor imparted to milk, by feeding on turnips and cabbages, I should think these crops would yield a more abundant feed for stock than any others that can be cultivated. On looking over the number of the Transactions of the Essex Society, recently published, I perceive the crop of cabbage raised by Mr. Mason, of Beverly, exceeds any vegetable product that has come to my knowledge. The sales from his grounds the present year exceeded $450 per acre, for several acres. When it is considered, with how little labor this crop is grown, the land being properly prepared, there would seem to be no occasion to go *West* to raise wheat at 50 cents a bushel, when labor can be so much better rewarded by growing cabbage in the *East*.

P.

Danvers, January 26, 1852.

Curious Cause of Complaint.—J. Breck, in a communication which we find in the last *Massachusetts Ploughman*, complains in the most severe terms, of the present publishers of that excellent paper, the *New England Farmer*, for taking the same name as *he* adopted some twenty years ago, for a similar publication, and which gave up the ghost in July, 1846! He denounces it not only as in bad taste, but as a "*gross outrage* upon those now living" who were connected with the defunct paper, "and something near of kin to sacrilege to the memories of those who sleep in the dust"—of course including in the list that old Farmer!

Are there no straight jackets in New England?—*Germantown Telegraph.*

Grass under Trees.—By sowing nitrate of soda in small quantities in showery weather under trees, a most beautiful verdure will be obtained. I have used it under beech trees in my grounds, and the grass always looks green. Having succeeded so well on a small scale, I have now sown nitrate of soda amongst the long grass in the plantations, which cattle could never eat. I now find that the herbage is preferred to the other parts of the field.

For the New England Farmer.

THE HISTORY OF THE APPLE TREE.

BY S. P. FOWLER.

[CONTINUED.]

The cultivation of the apple in this country, in the days of the first settlers, was confined to a few varieties. Some of those, now in cultivation, are the High-top Sweeting, Winter Pearmain, and an apple cultivated by Governor Endicott on his orchard farm, and called the Endicott Flatcap Sweeting. This fruit, we have cultivated for its antiquity, and have found it to be a small second rate, late fall, or early winter sweet apple. This apple, and the old Endicott pear, are the only kinds of fruit, that have come down to us from the old governor's famous orchard farm, planted more than two centuries since. Some of the best apples that we now cultivate originated in Massachusetts, many years ago. The Baldwin has been known for a century, and was called in its early days the Woodpecker apple—likewise the Pecker apple, and the Butters apple. It acquired this last name, in consequence of its having originated on the farm of a Mr. Butters, situated in the town of Somerville, in the county of Middlesex. The tree is not standing, but a monument has been placed on the site, where it once flourished. The Danvers Winter Sweet is another fine Massachusetts apple, and has been known for more than one hundred years. It originated in South Danvers, on a farm cultivated by Daniel Eppes, Esq., designated, in his time, as the great "New England Schoolmaster." This tree has long been cultivated in the county of Essex, and was formerly known as the Eppes Sweeting, having acquired this name from its first cultivator, likewise the Ippotent Sweeting and Ipswich Sweeting; it is, however, now generally known as the Danvers Winter Sweet. We have been informed that the original tree disappeared several years ago. And could the site where it once flourished be found, I am persuaded my esteemed friend, Kendall Osborn, Esq., who now owns the farm where or near this fine apple originated, would place a simple monument, like the one erected to the Baldwin, to mark the spot where it once grew. Notwithstanding the many new varieties of apples, that have been introduced within a few years, we doubt very much if two better kinds can now be found, possessing so many good qualities, so well adapted to our climate and culture, and withal so profitable for the market, as these two old, well-tested apples, which have come down to us from past generations.

I wish here to say a few words to those who are about planting the Baldwin, or the Danvers Winter Sweet. As a general rule, the Baldwin bears its fruit mostly in even years, as we term it, hence we may expect the present year to be what is termed a Baldwin year. The next or intermediate year, with a few exceptions, will be a barren year with this tree. Thus we find in these bearing years, a great amount of fruit, and consequently low prices. And in the barren years, a comparative scarcity of fruit, and high prices. Now as we have before said, it is the habit of the Baldwin tree to produce fruit in even years, and but few, if any, in odd years. But this is not a fixed habit; we occasionally find a tree, whose habit is to bear fruit in odd years, and but few, if any, in even years. Now we can profit by understanding the habits of the Baldwin, and obtain a succession of fruit, both for our own use, and for the market, by budding and grafting from those trees known to bear in odd years. By so doing, we shall probably obtain, in nine cases out of ten, the kind we desire. Care should likewise be taken to cultivate none but those possessing the best flavor, never forgetting, that some trees bearing red apples, and sometimes sold for Baldwins, are not always the genuine kind of fruit. Those about to plant the Danvers Winter Sweeting, should be careful to procure the true kind, as it is sometimes confounded with the Green Sweeting,—which it somewhat resembles, but can readily be distinguished from that apple when ripe, by its beautiful yellow skin, and an occasional red cheek, when exposed to the sun. As we have before said, there are two other old varieties of apples, now in cultivation; one is the Pearmain, cultivated by the fathers of the old colony, and undoubtedly brought over by some of the early colonists. It is still cultivated and esteemed by some persons, who like its peculiar flavor. The High-top Sweeting—is another apple peculiar to the old Plymouth Colony, and was extensively cultivated by the first settlers. Mr. Hovey says there are numerous orchards, wholly of this apple, which now hang (August 16, 1848) full of the golden fruit. It is the opinion of this gentleman, that this fruit has been carried to Ohio, disseminated and cultivated under the name of the Summer Sweeting,—where it is said to be the earliest of the early sweet apples, and is a great favorite.

Josselyn, in his account of Two Voyages to New England, says the fruit trees of the colonists are subject to two diseases, the *meazels*, which is when they are burned and scorched with the sun, and *lowsiness*, when the woodpeckers job holes in the bark: the way to cure them, when they are lowsie, is to bore a hole into the main root, with an augur, and pour in a quantity of *Brandie or Rhum*, and then stop it up, with a pin made of the same tree. What remedy our ancestors had for what they call the measles in their apple trees, our author does not inform us. Probably the same dose of rum or brandy, as we well know this was an universal medicine for man or beast, in those early times, but we must admit, this is the first time we ever heard of the *ardent* being administered to a sick apple tree. The meridian rays of the sun falling upon the trunk of a fruit tree, are supposed to produce canker and other diseases, at the present day. The lice spoken of by Josselyn, were not caused by woodpeckers, but were the same which now infest apple trees, and are called bark lice. At the present day, those orchards situated in wooded districts are visited by woodpeckers, particularly by the Hairy and Downy Woodpeckers of Wilson, to peck from the apple tree those insects that lie lodged in its bark. To effect this object, these little birds make many holes with their sharp bills, on the trunk and branches of the tree, without injuring it. More attention to the increase and preservation of birds should be given by the cultivator. Birds are, undoubtedly, his best allies in the destruction of noxious insects. The American Ornithologist, Wilson, who well understood the habits of our birds, says, Providence seems to have formed birds for the protection of our fruit and forest trees, from the ravages of vermin, which

every day destroy millions of those noxious insects; and are, in return, proscribed by those who ought to have been their protectors. Let us examine better into the operations of nature, and many of our mistaken opinions and groundless prejudices will be abandoned, for more just, enlarged, and humane modes of thinking. The bark louse is occasionally troublesome in our orchards. The first notice we recollect to have seen of this insect, was from Enoch Perley, of Bridgeton, Maine, written in 1794. He says, these lice are natural in the uncultivated forest, on what is called moose-wood and other bushes. The American tent caterpillar, or lackey, has infested the apple tree from its earliest history in this country. It is a native insect, and is found in our forests, on the wild cherry tree. Our ancestors cultivated the apple mostly for cider, and neglected to destroy this insect. It was not until the year 1817, that the destruction of these vermin became easy by the invention and introduction of a brush, by that distinguished cultivator of the soil, in Essex county, Col. Timothy Pickering.

In consequence of a severe winter, a few years since, these insects were mostly destroyed. From the 4th volume of the Massachusetts Agricultural Repository, published in 1819, we learn that the attention of cultivators was first called to notice the ravages of the apple tree borer at this time. The subject was mentioned to Professor Peck, and several gentlemen, who had never heard of this destroyer of the apple tree. This insect had caused the decay and destruction of many apple trees before discovered, and was at last detected by noticing the holes bored by them at their roots, upon cutting down the trees. Doctor Harris says that our native thorns, and aronias, are the natural food of the borer. He says, killing it by a wire thrust into the holes it has made, is one of the oldest, safest, and most successful methods.

The curculio or plum weevil, commenced its ravages in our orchards and gardens about the commencement of the present century. It appears that Doct. James Tilton, of Wilmington, Delaware, in a communication to Doctor Mease, editor of the *Domestic Encyclopædia*, first gave an account of this insect, sometime previous to the year 1809 This insect at this time was erroneously supposed in its retreat below the surface of the earth, to be injurious by eating the roots of fruit trees. The plum weevil attacks the apple, pear, plum, apricot and cherry. It is probably a native insect, as it differs from the copper colored plum weevil of Europe, described in Kollar's Treatise, page 238. There are many ways laid down in the books for destroying this great pest. But as a general rule, all contrivances to drive away insects from our trees, instead of destroying them, should be avoided. All such attempts in the case of the curculio, by paving the ground under the trees or whitewashing them, is useless, when we consider the plum weevil has wings, and when disturbed on the plum tree, can fly to the apple, pear, cherry, nectarine and apricot. Beside, it is a satisfaction, to know and feel as you hold him between your thumb and finger, that he is about to die, and do no more mischief, and that you have not been guilty of the mean act of driving him over the fence into the garden of your neighbor to annoy and vex him. This insect appears to be now rapidly on the increase. The apple worm is not found a native of our forest, but was introduced from Europe. The injury sustained by the apple from this insect, was supposed at one time to have been committed by the plum weevil, and these two insects were confounded together. Doct. Thacher, who wrote an excellent Treatise on Fruit Trees, in the year 1821, when describing insects injurious to the apple tree and its fruit, makes no mention of the apple worm.

No good account of this insect appears to have been written or published much before the year 1820. When introduced from Europe, it first appeared on the sea-board, and is now more numerous in New England than in the middle States. In years past, the wind-fall apples were mostly ground for cider, and consequently the worms were destroyed, the cider drinkers receiving the benefit of them. At the present day, although we are nearly rid of cider drinkers, the apple worm is greatly on the increase. The past season they attacked my cranberry bed, and mostly destroyed the fruit. The remedies, laid down in the fruit books, for these vermin, if followed with perseverance, will lesson their numbers, if they do not wholly destroy them. S. P. Fowler.

Danvers, Jan. 8th, 1852.

[TO BE CONTINUED.]

TO PRESERVE PEACH TREES.

The following is, probably, the best method of preserving peach and apricot trees from the destructive effects of excessive frost. When the ground is thoroughly frozen in the early part of winter, cover the ground under the trees, as far as the roots extend, with muck, (i. e. wet straw, or any other litter that is a bad conductor of heat,) to the depth of from four to six or eight inches, and let it remain until the ground has become fully settled. The muck should be wet, so as not to be a harbor for mice in the spring. The rationale of this mode is this:—The winter or January thaw frequently causes the buds of the peach and apricot, and some other early-growing trees, to start to such a degree, that the excessive cold of the latter part of the winter destroys the germ of the fruit-bud, but not so as to prevent its blossoming. In such cases, if the bud be examined before it blossoms, the centre will be found black and lifeless. By covering the ground as above, the frost is retained in the ground under the tree, about its roots, so that growth does not commence in the winter.—*Dollar Newspaper.*

THE BEST BREED OF SWINE FOR THE FARMER.

I am perfectly satisfied from long experience, and have publicly advocated it for upwards of ten years, that the best and most profitable swine for the farmer, is that breed which will nearly mature at eight to twelve months old, and then weigh, well fatted and dressed, from 250 to 350 pounds. A pig that has to be wintered and kept till sixteen to nineteen months old, before fully fatted, rarely pays for itself at the ordinary price of pork; and the average weight of these, in the United States, even at a year and a half old, I do not believe exceeds 300 pounds.

Now, what the farmers want is a large breed with fine points and great growth. Such a breed

can be made fat at any age, and invariably matures quick. But recollect they must have *fine points;* by this I mean fine or small heads, ears, legs, feet and tail, a wide, deep chest, and a round full body, like a barrel. These constitute what are technically called fine points. None of your big heads, large lop ears, coarse bristles and hair, long legs, great feet, and flabby, thin, slab-sided bodies, after the alligator or landpike order. Of the large breeds, I prefer the Lincoln.

In order to get pigs to weigh well, they must come early. February in the Southern, March in the Middle, and April in the most Northern States, are the best months to drop pigs. Feed them from the start, all they will eat, and they will be ready to kill from October to January; and thus you dispense with wintering any, except those reserved for breeding.—*From the Plow.*

SALE OF STOCK—FOUL AIR.

We copy from the London Times a few items of a late sale of animals at The Knowsley Menagery. The sale was principally of Brahmin and Zebu cattle. A Brahmin Bull brought $250; a Zebu bull $64; 21 lamas sold for $2,935; a pair of alpacas for $325; a male Zebra from South Africa, for $750; a female in foal, of the same species, brought $700; a female quagga for $250; a lot of three kangaroos, a female and two males, sold for $525, to go into the zoological gardens. There were also sold the Scotch deer hound, English blood hound and other rare and choice animals. The Brahmin male crossed with the Devons it is said have formed a beautiful race of cattle. In this manner the English people are extending their experiments into all the races of animals that can be collected and subdued.

In the same paper we find the following for clearing a well of foul air. Put a quart or two of unslacked lime into a bucket, and before lowering it into the well, pour a sufficient quantity of water on the lime to slake it; then let it down to the water but not so as to go into it. In a few minutes the well will be cleared of the foul air, the slaking lime either taking up the noxious air or forcing it out of the well. So says the *London Builder.*

☞ We have received a copy of an Address delivered before the Sullivan County Agricultural Society on the 4th Nov. last, by the Hon. Edmund Burke, of Newport, N. H. It abounds with important facts and valuable suggestions. Mr. Burke holds a powerful pen, and we are glad to find it enlisted in the cause of Agriculture. Perhaps few persons have made the subject of political economy so much of a study, and so well understand the influences of the different professions, trades and occupations of our people upon the progress of the country, as Mr. Burke. In his vigorous intellect and persevering habit, the cause may find important aid. Some extracts from the address may be found in another column.

MASS. BOARD OF AGRICULTURE.

The Board met at the State House on Monday, the 2d inst., at 10 o'clock. The President, Col. Wilder, in the chair.

Wm. S. King, Editor of the *Journal of Agriculture*, was elected Secretary, *pro tem.*

The chair suggested that the Board proceed to take up the regular business of the Board, such as reports, several having been recommitted at the last meeting.

The President then stated that the Executive Committee, at the last meeting, had agreed that the resolutions now presented should form part of a memorial to be presented to the Legislature.

Col. J. W. Lincoln presented a report on crops generally, with the weight of a bushel of each kind of several crops, viz.:

	POUNDS.		POUNDS.
Corn	56	Carrots	55
Rye	56	Sugar Beets	60
Barley	46	Mangel Wurtzel	60
Buckwheat	46	Ruta Baga	60
Oats	30	Parsnips	45
Wheat	60	Round Turnips	50
Potatoes	60	White Beans	60

This report is drawn with care, and is full of reliable information. Perhaps there is no man in the State better qualified to report on these subjects than Col. Lincoln.

Mr. A. W. Dodge submitted a most excellent report on Milch Cows. This was recommitted with a request that the committee append to it a standard of measuring milk, whether it shall be the wine or beer quart. The committee subsequently reported that all persons competing where milk is concerned shall use the wine measure. We believe this is the measure now required by statute of the State in the purchase and sale of milk.

The several incorporated societies of the State were represented by the following number of delegates:—

Massachusetts Society	1	Hampshire, Hampden and Franklin	3
Essex	3	Franklin	2
Worcester	3	Berkshire	0
Bristol	2	Hampden	1
Middlesex	2	Housatonic	1
Plymouth	1	West Worcester	3
Norfolk	2	Barnstable	1
Hampshire	3		

Mr. Daggett submitted a report on Farms.

Prof. Fowler reported on the Hampden Co. Society. In the course of the report he stated that a single squash vine was exhibited having on it 16 squashes, weighing in the aggregate 700 pounds. Some of the parsnip roots were said to be about three feet long.

Mr. Proctor reported on the Bristol Society.

Dr. Reed reported upon the Housatonic Society.

Mr. King reported upon the West Worcester Society.

Voted, That the Society be requested to notify the persons who have not already reported.

Voted, That the Executive Committee of this

Board be instructed to confer with the Secretary of State in regard to the publication and circulation of the proceedings of this association, and to make such application to the Legislature as may be deemed expedient.

Voted, That the Executive Committee be also instructed to take such measures as they may deem expedient to secure a more general circulation of the abstract of agricultural societies, published by the State.

Resolved, That the Executive Committee be authorized and instructed to make arrangements with Prof. FOWLER, of Amherst, who contemplates a voyage to Europe, to procure a Report from him to this Board on the agriculture and agricultural institutions of the countries he may visit.

The President introduced and read a paper from the *Pennsylvania State Agricultural Society*, asking the co-operation of other States in calling a National Convention of Agriculturists, at Washington, to take measures for the establishment of a National Agricultural Society.

And, upon motion, the following preamble and resolve was adopted.

Whereas, This Board, at their last meeting, holden Jan. 14, passed a resolution proposing a National Agricultural Convention, and whereas they have received a communication from the State Agricultural Society of Pennsylvania on the same subject,

Resolved, That said communication be referred to the President of the Board for his consideration and correspondence.

Resolved, That the Executive Committee arrange the subject of premiums to be recommended to each county Agricultural Society.

Voted, That the Executive Committee be authorized to call a future meeting of this Board whenever business of sufficient importance may seem to them to require it.

This session of the Board was particularly for the transaction of business, and no discussion of importance took place. After the passage of the above vote the Board adjourned to meet in the Representatives' Hall at half-past three, P. M.

[For the conclusion of the report of the above meeting, see page 130.]

DISINFECTING LAMP.

A note, from a medical friend, reminds us of a beautiful, simple, economical apparatus, for overcoming bad odors and purifying any apartment where the air is loaded with noxious materials. A description of it has already appeared, but the reference in the note alluded to, has unfortunately been mislaid. The whole matter, however, is simply this. Take one of any of the various kinds of glass lamps—for burning camphene, for example—and fill it with chloric ether and light the wick. In a few minutes the object will be accomplished. In dissecting rooms; in the damp, deep vaults, where vegetables are sometimes stored, or where drains allow the escape of offensive gases; in out-buildings; and in short, in any spot where it is desirable to purify the atmosphere, burn one of these lamps. One tube, charged with a wick, is quite sufficient. This suggestion is really worth remembering for the comfort of a sick room, because it is easily accomplished, agreeable, and more economical for purifying than any other process now known.—*Boston Medical Journal.*

For the New England Farmer.

PALMER'S SECOND IMPORTATION OF SHANGHAES.

THE RIGHT KIND OF HENS.

BY W. CLIFT.

Of the breed of domestic fowls, imported into this country from Shanghae, in China, and bearing the name of that city, much has been said and written. Hen literature has abounded with their eulogies, and occasionally has been marked with their anathemas. Opinions, that did not reach the press, were conflicting, and it was difficult for a man without the fever, to get at any very satisfactory results in regard to them.

Living in the vicinity where they were first imported, I necessarily heard something of their fame, but found the farmers who had tried them differing very much in their opinions concerning them. Some thought highly of them as a pure stock; some thought them very good for crossing with the native hens, making a larger fowl and one more prolific; while others discarded them altogether, as a *great, coarse fowl*, enormous eaters, poor layers, and the flesh insipid for poultry.

It was worth an effort to get at the truth in this matter, and I determined to make an accurate experiment to test their value. Capt. A. Palmer, who imported the Dixon stock of Shanghaes in 1846, made a second importation, in the spring of 1850. He was very successful with them during the summer, and raised a large number of chickens. Oct. 31st, 1850, I procured a cock and two pullets, by special favor having the choice of the flock. To start them under good auspices, and to keep up with the spirit of the times, the cockerel was named Barnum, and the pullets, Jenny Lind and Juliet. They were about five months old when procured, and Barnum weighed nearly six pounds. The pullets were not weighed. Barnum and Jenny Lind were of a fawn color, and heavily feathered upon the legs. Juliet was parti-colored, with few feathers upon the legs.

They grew finely, and I find in my fowl book an entry Jan. 1st, 1851. Barnum weighed nine pounds Jenny Lind six pounds. May 1st, 1851, there is another entry. Barnum weighed ten pounds, Jenny Lind eight and a half and Juliet eight and a half. December, 1851, Barnum weighed eleven and a half pounds strong, and the pullets about seven.

The fecundity of the pullets will explain this falling off in weight. Jenny Lind began to lay Jan. 16th, and Juliet Jan. 23d. The following record will show the date of the beginning of each litter of eggs, and the number.

JENNY LIND.		JULIET.	
1. January 16	21 eggs.	1. January 23	6 eggs.
2. February 22	17 "	2. March 2	17 "
3. March 24	23 "	3. March 30	23 "
4. April 25	19 "	4. May 3	18 "
5. May 25	15 "	5. June 1	14 "
6. June 24	16 "	6. July 14	15 "
7. July 28	13 "	7. August 8	15 "
8. August 18	14 "	8. September 1	13 "
9. September 13	9 "	9. September 25	19 "
10. November 8	16 "	10. November 4	17 "
		11. December 4	14 "
Total	163 eggs.	Total	171 eggs.

Juliet set once, and with this exception they were not permitted to incubate, as they strongly inclined to, at the end of each litter. They were nearly all the while kept with a large flock of fowls, and confined in a yard during the summer, so that they had no special favors. Had the eggs been sold at the market price, they would have come to five dollars. The eggs weigh about one pound and a half a dozen, which makes the whole weight of eggs nearly forty-two pounds. They have therefore laid three times their present weight in eggs. It will not be wondered at, that they lost something in flesh.

I had heard it stated that this breed of fowls had a tendency to run out in this climate. To test this opinion, I have kept account of the 1st clutch of chickens which were hatched March 24th. There were six pullets out of the ten which nearly grew up. One died at about five months old and one was killed for the table at about six months. The remaining four laid as follows:—One sent to David Jackson, of Taunton, Mass., began to lay at the age of five months, and in a letter received in Dec., he informed me that she had been laying constantly since the first of September. This one was out of Juliet. Another of her chicks began to lay Nov. 1st, at seven months old, and laid 31 eggs, up to the 7th of December, when she inclined to sit. She was then presented to a friend. The third of the clutch out of Jenny Lind was named Catherine Hays. She began to lay Oct. 11th, and up to this date has laid eighty-three eggs, without inclining to sit. The fourth, a bird too unpromising to have a fancy name, and from whom nothing good was expected, began to lay Dec. 17th, and has finished her first litter of 12 eggs

From these statistics it is manifest that in laying qualities, the second generation is an improvement upon the first. The cockerels have been weighed occasionally, and fair specimens have gained about a pound a month up to the age of 8 or 9 months. One weighed 9 pounds at 8 1-2 months, and the largest weighed ten pounds at nine months. They have been more healthy than any fowls I have ever kept, and I have raised all I wanted.

I have made no accurate experiments of the expense of keeping them, but have this general result:—In 1850, when the larger part of the flock were of the native breed and crosses, the expense per head was more than in 1851, when the greater part of the flock was of the Shanghae breed.

Now if somebody else will give us accurate experiments of other breeds of fowls for the year 1852, we shall be able to tell which are the right kind of fowls. I have some of the Dorkings and white Shanghaes of Dr. Wight's stock, Dedham, and have put them on trial for this year. Will not some fowl breeder test the Black Spanish, the Chittagongs, the Brahma, Pootras, &c., and help us to the fowl facts, which is the only remedy for the hen fever!

The only peculiarity of this importation of Shanghaes is a tuft of stiff feathers or quills projecting from the thigh very much like those of a Bantam. In some specimens the mark is hardly noticable; in others, the feathers are three or four inches in length. As the importer has never sold any of these fowls, they are at present in very few hands. Of their merits compared with other Shanghaes and other races of fowls, the reader will judge for himself. With the writer they have passed a good examination and are admitted to the first class for size, hardiness, fecundity and profit. Whether or not they are *the right kind of hens*, remains to be seen. We shall hold on here, until our own experiments or those of some other breeder point out a better. W. C.

Stonington, Ct., Jan. 15, 1852.

OFFICERS OF AGRICULTURAL SOCIETIES.

North Kennebec (Me.) Agricultural Society.—The *Eastern Mail*, Waterville, of last week, gives a list of the officers of the North Kennebec Agricultural Society for the ensuing year, as follows:

Robert Ayer, of Winslow, *President.*
Isaiah Marston, of Waterville, } *Vice*
Amasa Dingley, of Winslow, } *Presidents.*
W. Dyer, *Secretary and Librarian.*
Joseph Percival, *Treasurer.*
Ephraim Maxham, *Agent.*

Bennington County (Vt.) Agricultural Society.—The officers of this Society for the present year are

Charles Hicks, *President.*
Jerome J. Hall, } *Vice Presidents.*
Martin Wheelock, }
Norman Bottum, *Treasurer.*
P. M. Henry, *Secretary.*

Plymouth County (Mass.) Society.

Seth Sprague, *President.*
Joshua Eddy, } *Vice Presidents.*
Benjamin Hobart, }
Jesse Perkins, *Secretary.*
William Latham, *Treasurer.*
Horace Collamore, *Supervisor.*

Orange County (Vt.) Agricultural Society.—The officers of this Society for the present year are,

Geo. P. Baldwin, of Bradford, *President.*
J. S. Morse, Strafford, } *Vice*
Alvin Smith, Williamstown, } *Presidents.*
Burnam Martin, of Chelsea, *Secretary.*
B. T. Blodgett, of Chelsea, *Treasurer.*

A Rouser!—A gentleman just from California handed us a potato this morning which weighed *three pounds and a quarter!* Now, gentlemen *doubters*, be kind enough to believe that a single potato grows large enough in California to give half dozen men a good dinner—especially if they have plenty of good beefsteak with it. This is a great country—decidedly!

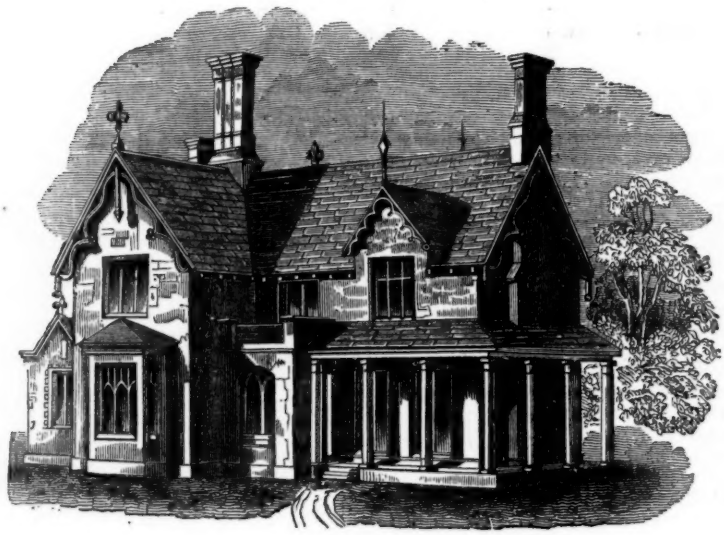
The Trade Looking Up.—We have before us the first number of a paper bearing the pleasant name, *Green Mountain Farmer*. It is to be published at Bradford, Vt., twice a month, at $1 a year. It is well filled, and take it altogether is a very comely child.

A MODEL FARM SCHOOL.

Now that the subject of Agricultural Education is receiving some attention and will probably become a prominent topic in the legislature, we ask our readers to give it their careful attention, and refer them particularly to the article on the subject of a *Farm School* in another column. We do this freely, because the object must be of importance wherever our columns are read—Canada, Oregon, Texas or California; and they are readin them all.

As we have said before, every interest among us, excepting the farming interest, has received the encouragement and fostering care of the State. That vital interest has been neglected, so that Massachusetts, the pioneer in other education, in ship building, manufactures and inventions, has no institution within her limits to teach her sons the Art of Farming. It is time something were done to advance these interests and check the spirit for emigration which is robbing the old homesteads of the State of many of their best sons. A more intelligent practice of husbandry will do more towards it than a thousand volumes of essays. It is every man's duty to aid in the work.

COTTAGE ARCHITECTURE.

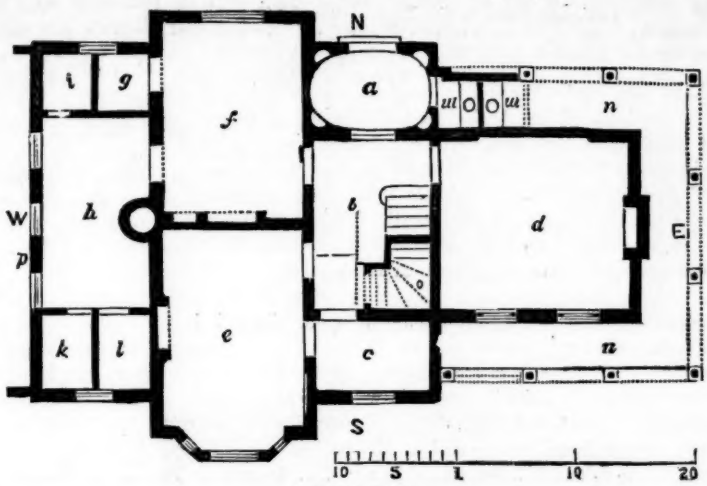


PERSPECTIVE VIEW OF A GOTHIC COTTAGE.

We give in this number the elevation, ground and chamber floor plans of an attractive and pleasant cottage. We do not say that it is perfect in all its architectural points, but that it combines so many advantages that one may adopt it as a whole, without doing violence to a tolerably correct architectural taste. Or, it may be modified somewhat to suit location or individual ideas. At any rate, we hope many of our readers will find something in it to meet their wants.

A manifest improvement of taste has been exhibited, within a few years, in the construction of dwellings, as well as an increasing regard for convenience and health. The discovery has been made that neatness, taste, and even elegance, may be combined with utility and economy, in our houses and cottages;—a fact unknown, or little heeded, by our matter-of-fact, prosaic ancestors. To gratify this commendable feeling, and to extend it in the community, if possible, we shall present to our readers occasional specimens of cottage architecture, from both original and selected designs. As an illustration of the manner in which we design to treat this subject, we here introduce a perspective view of a country residence, on a small scale, in the Gothic cottage style. It is transferred, with some alterations, from Loudon's "*Encyclopædia of Architecture.*"

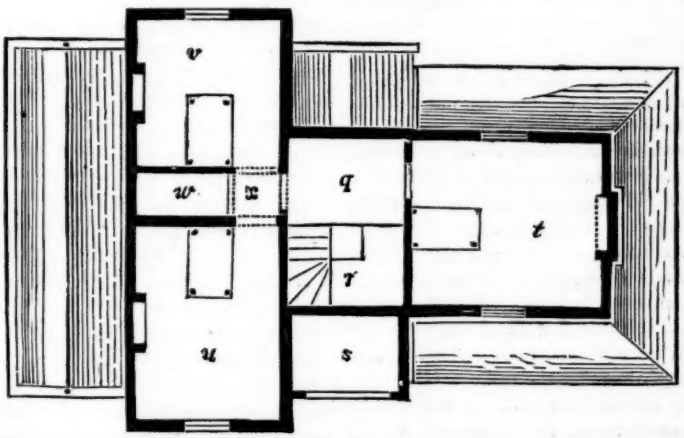
In the ground-plan, with the points of compass indicated by the letters N. S. E. W., *a* is the entrance porch, which is to be finished with a covered roof, and to have Gothic niches at the angles, for statues, or vases for flowers. From this you pass to the hall and staircase (*b*), by a Venetian door, the upper part of which may be glazed with stained glass; thence to a small ante-room (*c*), which may be used as a book-closet, or, having a good southern exposure, as a conservatory for plants. From this there may be a glazed door leading to a piazza, surrounding the eastern wing



GROUND PLAN.

of the cottage. From the hall you enter the dining room, (*d*), the two windows of which may be brought down to the floor, and open like French casements, so as to lead out to the piazza. From the hall you likewise enter the drawing-room, (*e*), which may have a glazed door opening into the conservatory. If preferred, *e* may be made the dining-room, and then a communication may be made with the kitchen, (*f*). From the kitchen there is a door leading to a closet, or pantry (*g*), and another to the back kitchen or wash-house, with a copper, (*h*); a larder for meats, (*i*); a place for cleaning knives, boots, lamps, etc., (*k*); and a store room, (*l*). There are two water-closets, (*m. m.*) both under cover; one entering from the porch, the other from the piazza. Under the principal staircase is a flight of steps, (*o*,) shut in by a door descending to the cellar. Behind the wash-house, (at *p*), is a kitchen yard, which may be surrounded by a high fence, and covered with shrubbery; where may be the wood-house, privy, well, etc.

In the chamber floor plan, *q* and *r* show the landing and stairs; *s*, a balcony over the conservatory, entered from the staircase window; *t*, *u*, and *v*, bedrooms, with the places for the beds; *w*, linen-closet; *x*, passage-way.



CHAMBER FLOOR PLAN.

MEETING OF THE MASSACHUSETTS BOARD OF AGRICULTURE.

AFTERNOON SESSION.

The Board met at half-past three in the Representatives' Hall, Mr. WILDER, President, in the Chair.

The President submitted a letter from Dr. LEE, who stands at the head of the Agricultural Department at Washington, approving of the proposition for holding a National Convention for the promotion of Agriculture. He recommends that it should be held at Washington, in the month of June next. He was sure it would be attended by delegates from nearly or quite every State in the Union.

The President also submitted a translation of a French publication, giving an account of the National Agricultural Institution of Versailles, France, which had been forwarded to him by ABBOTT LAWRENCE, our Minister at the Court of St. James.

The thanks of the Board were voted to Mr. Lawrence on motion of JOHN W. PROCTOR, of Danvers, and the document itself was referred to the Executive Committee.

Mr. WILDER then, in behalf of the Committe to whom was referred the subject of Agricultural Education, submitted a preamble and set of resolutions. We can only find room for the two resolutions expressive of the opinion of the Board in relation to action by the State.

Resolved, That Massachusetts, by an enlightened policy and wise legislation, has rendered her system of education worthy of her exalted reputation, and that this Board most earnestly desire her to complete that system by providing kindred institutions for the scientific education of the farmer, upon whom is levied so large a share of the taxes for the support of Government and philanthropic objects.

Resolved, That it is the duty, as well as the interest of the State, to aid in furnishing the means for such an education, and that for the want of this education, millions of dollars and a vast amount of time, energy and money are annually lost to the Commonwealth by the misapplication of labor and capital in husbandry; and *resolved further*, that this loss is mainly to be attributed to the want of a proper system for the acquisition and diffusion of correct information, as to the most approved arts of cultivation, and the best means of perfecting this unfailing source of independence and happiness.

Mr. WILDER, in submitting these resolutions, remarked that it was a most extraordinary fact, that while the aid of science has been invoked to all other callings, and while it has been extended to the other interests of the State and country by the National or State governments, to this day not a dollar has been contributed by our national government to aid this most important interest of agriculture. What we want now is an institution to educate young farmers for the calling. He closed by reading an extract from Dr. LEE's letter, in favor of some such means as is proposed by the Board, for the promotion of a thorough and scientific agricultural education.

Maj. WHEELER, of Framingham, spoke of the low ideas which existed in his younger days in regard to the education of the farmer. It was thought if a boy learned to read, write, cipher and spell, he would make an excellent farmer. Too much of this want of education exists at the present day, and farmers are too willing to go on in the old way of their fathers. He showed, by alluding to Belgium and other European countries, that Massachusetts, under a similar system of scientific agricultural practice, might be made to produce a much larger amount of breadstuffs than she now does. He was decidedly in favor of encouragement to agricultural education.

Rev. Mr. PUTNAM, of Roxbury, was next called upon. He said he came to the meeting as a member of the Legislature, to learn what the wishes of the farmers of the State are in regard to this subject, in order that he might act more understandingly when called upon to act in another capacity.

Mr. DODGE, of Hamilton, discussed the application of science to agriculture, showing that this application is practicable. Alluding to agricultural science as developed in Europe, he contended that the same great principles are applicable in this country. The question is, then, why is not this science shown to our farmers? The great reason is, that there are not men enough here to teach it. There are a few men qualified for this duty, such as Dr. Lee, Professor Norton, and some few others, but they cannot be expected to experiment, uncompensated, for the benefit of others. Here, then, is seen the need of aid from the State, to extend the science of agriculture to the farming community. He hoped the day was not far distant when Massachusetts would contribute at least a pittance to carry out this object; when agriculture would come up and present her claim to the National government for recognition and aid, and that that claim would be met and allowed But he would not wait for this. The States should go on and establish agricultural Bureaus for themselves, in order that they may collect statistics to be forwarded to the national Bureau when that is established. He hoped that the friends of this movement would persevere in their work until their claim is allowed.

Mr. GORHAM, delegate from the Hampden, Hampshire and Franklin Society, next spoke. He said he saw in the community a prevalent apathy in regard to this subject, in the continuance of which he foresaw great evils to the State if not to the race. The dependence of all other interests upon agriculture he dwelt upon, and said that when *it* suffers all others suffer; when *it* fails, all others fail. And yet the position of this cause, in a national point of view, is most sad and humiliating. It was useless to say that this cause would take care of itself. It would not. The calling has to

do with the great mysteries and laws of nature, and you can no more expect agriculture to flourish without knowledge, than you can expect religion to flourish separated from the practice of virtue and morality. What science has done for commerce on the ocean, she has yet to do for agriculture on the land. The American farmers are looking anxiously for some guiding star to direct them in their calling. He believed that star had risen; that its glimmerings can be seen, and that with faith in it, it would lead to glorious results.

Professor FOWLER, of Amherst College, inquired, why at this day there should be any doubt of the value of education as applied to Agriculture? Especially, why should this doubt exist in Massachusetts? One reason, he believed, is that the advocates of agricultural education are not distinctly understood in their principles or purposes. It was not true that science, in its application to agriculture, was independent of labor and capital. Mere book knowledge is not better than practical knowledge drawn from experience, and the friends of this movement do not entertain or sustain any such theory. Science, without common sense, will not succeed. What they mean, is, that science, *with* common sense, energy, and practical experience, will accomplish the desirable results at which they aim. He supposed a young man about to enter into a partnership with earth and nature, in his profession as a farmer. To enter into this partnership profitably, he should understand the elements of the soils, the laws of geology and of the vegetable kingdom, in order that he may adapt the one to the other. The laws of animal physiology it is also necessary for him to understand, in order to adapt his stocks to his crops. The laws of chemistry, of the composition of soils, of mechanics, the great laws and agencies of nature, all should be known and observed by him, in order successfully to prosecute his calling. The great improvements in other arts, by the application of science, were alluded to in this connection, and the speaker asked, is agriculture the only art that is to receive no aid from science? is she, the oldest daughter of nature, after having fed her sister arts, to be dismissed without any dower? This ought not so to be; the friends of agriculture ought not to allow this so to be. He came to the conclusion that it is the duty of the friends of agriculture, and the duty of the Legislature, to establish an institution independent of all others, from which this knowledge and science can go forth. Establish it with limited means at first, and then let it grow, as the occasion may demand and as its usefulness may be exhibited in its results.

Mr. PROCTOR said, I concur most heartily in the general views of the resolutions now before this meeting. They say, in one word, that it is the bounden duty of the government, both National and State, to do something for the encouragement and protection of the interests of the farmer. Is not this so? Who are the farmers? Are they not *three-fourths* of the whole community? How are they rewarded comparatively? Look at their resources exclusive of the lands they occupy, and will it not be found that the *one-fourth*, comprising the commercial and the manufacturing interests, have more than the other *three-fourths?* Is there any equity in this? Is not the farmer as useful and reliable as any other class of citizens? On whom has the State ever relied in time of danger—if not on the yeomanry of the country? Those, then, who are her main stay in time of peril, have a right to aid and encouragement in times of prosperity. How can this aid be best applied? Will it not be best done by educating and fitting them to pursue their employment with intelligence and success.

But *first* and *foremost*, should the STATE take this matter under its own fostering and guardian care. Let there be established a department of agriculture, analogous to that of education;—to whom shall be entrusted the entire supervision and direction of all matters connected with this subject, and soon will it occur to them to mark out the path of improvement. Until such a Board is established, no appropriation of money is asked. And when established, the probability is, no expense will be incident thereto, except that of sustaining a competent Secretary—all of whose time will be required, in connection with the operations of the Board. Surely no valid objection can be made to an appropriation so trifling, compared with the benefits to be gained. Much has been, and may be said in relation to the education of the farmer. Some say this can be done best, by establishing agricultural teachers, in the existing colleges and schools. That teachers of this description may be advantageously introduced, no one will for a moment doubt;—and that it would be highly useful for all, whatever occupation they contemplate, to know something of the science of agriculture will be readily granted; but that the smattering of information there attained will be adequate to the object in view, no one acquainted with it can for a moment believe. Agriculture is a science—a science most complicated, and difficult to be understood. Its perfect comprehension needs a combination of all the other sciences—chemistry, geology, botany, and mathematics, are all involved in the study of the science of agriculture. No one can hope to master this science, without becoming an adept, in each and all the others. It is not sufficient to learn them *technically* and *formally*—but he must enter into the philosophy of them, and understand the reasons of the changes brought about.

Mr. BAGG, of the Hampden Society, spoke of the necessity of the appointment of a body of men competent for the work—who should collect and em-

body the facts which exists now among farmers, and arrange them for the benefit of the community at large. Thrift, he said, was the invariable attendant upon knowledge, not of scientific knowledge alone, or of practical knowledge alone; but of both combined. It was the duty, therefore, of the Legislature to encourage this thrift by spreading knowledge among agriculturists.

Mr. NASH, President of the Hampshire Society, believed that common sense and experience were of the first necessity, and to these science would lend the most valuable assistance. He did not believe that practical farmers could become distinguished chemists. But there are principles in the sciences of zoology, of animal physiology, &c., which any person may acquire readily and apply in his every day experience. Such a knowledge may be obtained in a very short time—if the student, be he the farmer's son or the farmer himself, is directed to the right point. He would recommend a course of study from which advantages might be received at once. In these requests to the Legislature he would advise the friends of this cause to ask for a small sum to try the experiment, and then if "their works did not praise them," they would ask for no more. He thought that more than ten dollars might be saved in each one of the 100,000 barn-yards in this State, by knowledge of a proper management of the manure. Even at one dollar, $100,000 will be saved to the State. The proposed grant of the Legislature would hasten this result, at least, several years, and even if it hastened it but one year, still as much or more would be saved as is asked for the friends of this cause. He said that by an application of new treatment to a piece of land which he purchased, from eight acres, he had increased the crop of grass from three tons to fifteen tons. He hoped the means of extending this knowledge would be granted by the Massachusetts Legislature the present session.

The meeting then, on motion of Mr. SIMON BROWN, of the *New England Farmer*, adjourned to 7 o'clock.

EVENING SESSION.

The meeting was called to order at 7 o'clock. Lieut. Gov. CUSHMAN was introduced to the meeting, and offered the following resolution—which he sustained in a few interesting and appropriate remarks:—

Resolved, That the resolution now under consideration be adopted, and that the officers of the Board of Agriculture be directed to present the same to the Legislature, and to urge such action by that body as may be thought most expedient to carry into practice the *principles* contained in said resolution.

He said the question most important is, what shall be done? The resolutions have been ably discussed and the unanimous opinion seems to be that the time has come when agriculture should be exalted and receive from the government that attention and aid which is her right. How shall this be done? By the establishment of a Board of Agriculture as indicated in one of the resolutions. Make agriculture one of the departments of the Government.

Mr. CLARK, President of the Hampshire, Hampden and Franklin Society, was called upon. He said the word science had got to be a humbug. Some of the weekly agricultural papers had held this word up as a source of terror to the farmers, threatening them with the loss of their farms. Science is truth. Knowledge is science, and knowledge is power. The man who possesses the most knowledge finds it all useful upon his farm; the more he knows the more he wants to know. The objections to this subject he believed arose from ignorance, and from those who are willing to abide in their ignorance. Farmers had not ought thus to be taught to break down their own interests. We want more knowledge to prevent the misapplication of labor—and a school is required to impart this knowledge.

Mr. DAGGETT, of Bristol county, next spoke, and expressed his gratification at Mr. Nash's remarks, but thought they did not go far enough. Mr. Nash, he said, showed that the great majority of farmers could not be thoroughly, scientifically educated. Is not this, Mr. D. asked, an additional argument why a school should be established? Suppose a school be established with say three hundred and twenty scholars, and after having acquired their education, they distributed themselves through the towns in the Commonwealth, where they put theory and knowledge into practice. Their neighbors around them would copy their example—and thus, *by example*, would this knowledge be disseminated from town to town throughout the State. Why, he asked, do farmers take so little interest in the promotion of this knowledge? It is because they do not feel its importance. The great object of this school should be to disseminate knowledge throughout the State.

Mr. S. SPRAGUE, of Duxbury, President of the Plymouth Society, spoke of the pleasure he had experienced at these meetings. The opinion was expressed by farmers from all parts of the Commonwealth that more agricultural knowledge is needed in our own State; and this unanimity of opinion strengthened very much, the hands of those engaged in this movement. He believed it cost more to raise a bushel of grain in New England than in any other country,—owing to the sterility of our soil. This disadvantage is to be overcome,—and he believed it could be done by farmers better understanding the duties of their profession. It was difficult to fix upon a plan for extending this education. Different schemes were proposed. He was willing to begin with a commissioner of high scientific attainments, who, if thought advisable, might be summoned by a

Board composed of the Presidents of the incorporated agricultural societies. This Board should offer premiums for experiments calculated to throw light upon practical farming; these experiments to be made under the direction of the Commissioners and the premium to be paid by the State. In this way much valuable information might be obtained.

Dr. GARDNER, of Seekonk, hoped the propositions which had been advanced might be carried out. He would like to see an Agricultural College, though he believed the better course would be, to disseminate agricultural information by means of the District Schools. He would also advocate the establishment of an agricultural professorship in every college in the State. This course, he thought, would reach a far larger number of farmers or farmers' sons, than one exclusively Agricultural College.

Rev. Dr. CHOULES said, the suggestion of the appointment of a Commissioner, as made by Mr. Sprague, struck him favorably. Associated with such a Commissioner, there might be ten or twelve persons to go through the various school districts in the State and lecture upon the importance of scientific education to the farmer. Meetings such as these are important, but much might be accomplished by going right among the farmers themselves, in their school districts and talking familiarly with them upon the subject. This course would make an alteration in the feeling of the masses upon the subject and that is what is wanted. He believed farmers are yet to be taught that they must "magnify their office." A practical farmer was very well, but he cannot make farmers. He cannot educate others to be farmers. An educated man is a powerful man, whether he be a farmer, a mechanic or an artizan. The man eminent in his profession, whatever it is, stands before a third or second rate man, in another calling. Power, power, is what is wanted by our farmers, and this must be got by knowledge. Dr. Choules alluded to what he observed of farming in his recent tour through Europe. He was astonished at the results he there saw, and which showed the most extended and thorough system, connected with the most rigid economy. He eulogised the exhibition of the British Royal Agricultural Society, and believed $10,000 would be well expended in sending a delegation of our practical farmers to the great exhibition of this Society, and then let them come home and tell what they had seen. They would confer a great benefit upon the farmers of Massachusetts.

Mr. BIRD, of the Executive Council, did not agree with the general ideas which had been presented. He did not believe a society like the Royal Society in England would help our farmers, and to show this, proceeded to contrast the condition of the agricultural population there, with ours. He believed we have now all the machinery in operation which is necessary for the diffusion of agricultural knowledge, and that machinery is our system of common schools. He did not believe in colleges of any kind, as the proper place to impart this instruction, and thought the common school system is all that is needed. He also denied that the State had afforded assistance to other interests to the neglect of agriculture.

Professor FOWLER replied to Mr. Bird, and showed that other interests had been better cared for than agriculture. He said the industry of the country might be divided into three great branches. First the agricultural branch, which produces the raw material; second, the manufacturing branch, which works the raw material into shape for the various uses of man; and third, the interest which conveys these products to different portions of the country or the world, to supply the demand for them. Now, he would ask, is it not true that the country has done much for manufactures, and for commerce, for railroads, &c. These two branches have received much aid and encouragement, but the agricultural branch has not received aid. There was another way in which this might be shown. The last returns show that the number of native Bay State men who are engaged in tilling the soil in Massachusetts is gradually decreasing, and their places are being filled by foreigners from all portions of the old world. Our young men of talent and enterprise are forsaking their farms and going into other callings, where there is more opportunity for exercise of their powers. It is admitted that science is the proper basis for all the arts. It is important that the want of the application of science to agriculture should be felt, and then we should go on to apply it. Common schools would never meet the wants of the farmers for agricultural education. It must be taught in a substantial independent institution. He also objected to Mr. Bird's idea, that there is antagonism between our colleges and common schools.

Mr. PUTMAN, of Roxbury, repeated his ideas advanced a few evenings since, and reported in our columns, that the best way to promote agricultural education is to teach farmers' sons to observe closely the laws and agencies of nature in their relation to agriculture. In conclusion, he expressed his satisfaction at the tone of the debate during the meeting, and pledged himself to use all his efforts to promote agricultural education in any position where he might have the opportunity. His own views were in favor of a school where farmers' sons can be taught practically in their callings. These pupils would go forth as school teachers and disseminate this knowledge. He would have a farm managed by one of the best *practical* farmers he could find, to lead the boys through the field. In the school-room they might have

lectures from the most thoroughly scientific men who could be found.

Mr. KING, editor of the *Journal of Agriculture*, illustrated the application of science to agriculture, and showed the good results which might be expected to follow this application. He closed with an appeal for a suitable school to teach this science.

Upon motion of Mr. PROCTOR, of Danvers, the resolutions under discussion were then adopted unanimously.

Some further remarks were made by Mr. Nash, of the Hampshire Society, HARVEY DODGE, Esq., of Sutton, and others, and the meeting then adjourned.

☞ In the above we have only given a mere outline of the remarks which fell from each speaker. Many of the speeches were distinguished for the excellent ideas and practical suggestions which they contained, and ought to be preserved. We have drawn upon our limits, however, to the utmost extent, long before the notes taken are exhausted.

For the New England Farmer.

PLOWING.

BY R. B. HUBBARD.

MR. EDITOR:—The object is twofold. *First*, to secure the decomposition of whatever vegetable matter has been produced by the soil. *Second*, to expose the soil to the action of the atmosphere and of water.

Suppose a large growth of clover to remain and decay upon the surface. It will enrich the land. Some portion, yielding to the combined action of heat and moisture, will become incorporated with the surface soil and add to its fertilizing properties. A much larger portion, however, for want of suitable moisture to promote decomposition, will vanish into "thin air."

The constituents of plants are of two classes, organic and inorganic. These elements are found to exist in about the ratio of 9 of the former to 1 of the latter; that is, in every hundred, about 90 parts of organic matter to 10 of inorganic. The organic portion is volatile; that is, readily assumes the form of atmospheric air, or gas; while the bases of the inorganic are permanently solid, except by the application of intense heat, and their compounds by water, such as lime, clay, flint, iron, magnesia, soda, sulphur, &c.

Of the organic elements, carbon, the principal constituent of all plants, unites with oxygen and produces a subtle fluid, which is always present in the atmosphere. Ammonia, so essential to the growth of plants, itself a gas, is composed of hydrogen and nitrogen. One a constituent of water, and the other of air.

These organic substances are either absorbed by the leaves, the respiratory organs of plants, or are taken up by the roots. In order that they enter into the circulation by the latter mode, which is doubtless the process by which the plant receives most of its nourishment, these volatile substances must be concentrated. This is effected by the soil, absorbing these gases, and subsequently by chemical combinations among organic and inorganic elements, which have affinity for each other.

For instance, sulphur and lime have no affinity. But oxygen and sulphur have, and readily unite, producing sulphuric acid, which unites with lime, forming sulphate of lime, or gypsum, which is a powerful fertilizer. So of phosphorus and lime. They may lie in contact in the earth any length of time and not combine unless by the intervention of some other substance. But let the air come in contact with the phosphorus and phosphoric acid will be produced, and that will seize upon the lime forming phosphate of lime, which is a most valuable fertilizer.

As this organic matter is indispensable to the growth of the plant, and as it is received mainly from the soil, through the roots, it must be obvious that the soil will be benefited by subjecting it to such a process, as will cause it to absorb these volatile substances. This is accomplished by plowing.

First, by turning the soil bottom side up, a portion, from which the air had been excluded, now comes in contact with, and absorbs it.

In the second place, the surface, which had become encrusted and almost impervious to the air, is now broken up and made accessible to gaseous substances, as far down as the plow has penetrated.

As before remarked, a large portion of the clover dries up and vanishes. That is, it is resolved, by affinities, into its constituent elements, which mingle with the atmosphere and is lost to the soil upon which it grew.

By plowing, this clover, while green, containing all the nutritive properties which it has derived from the soil, modified by atmospheric influences, is covered so deep, as to prevent the escape of gases by evaporation; and yet, not below the influence of heat and moisture. Consequently it decays, or is resolved into its constituent elements, which combine with the soil and by so much increase its fertilizing power. The same is true of stubble, weeds and every thing thatgrows from the earth.

Hence the importance of plowing—of frequent plowing—of thorough plowing and deep plowing, of which, with your permission, Mr. Editor, I may speak at some future time.

Truly yours, R. B. H.

Feb. 5, 1852.

REMARKS.—The above excellent article is so concise and plain that he who runs may not only read, but understand. It is in style and character just what our readers want, and we hope the writer will favor us often with the results of his studies, experiments and observation.

WESTERN HORTICULTURAL REVIEW.—JOHN A. WARDER, M. D., Editor. Monthly—at Cincinnati.—This work is conducted with ability, has intelligent correspondents, is printed handsomely on good large, fair type, in double columns, and appears every way as though it *were having a good time in the world*. We hope friend WARDER will not be led away by the seductive influences of the

Horticulturist and *Genesee Farmer*, and change its beautiful proportions into one *broad column*, which is neither easy to read nor pleasant to the eye. Well, how can one help making a good book in such a charming city as that Queen of the West!

For the New England Farmer.

ANNUAL MEETING OF N. Y. STATE AGRICULTURAL SOCIETY.

The annual meeting of the society was held at the capitol, the Assembly Chamber having been proffered for the use of the society. A very large number were in attendance, and the very best spirit prevailed, showing that the farmers of this noble State, in some measure, at least, appreciate the importance of their noble calling. The society being called to order, the report from the secretary was read giving a condensed account of the society's operations during the year—followed by the Treasurer—showing the receipts during the year $17,218 85; expenditures in Premiums, expenses, salaries, &c., $12,318 14. The officers for the ensuing year were selected. In the evening, at the same place, a most interesting address from the President, Mr. Delafield, to the members of the society who received prizes at the World's Fair, was made. This was an interesting event in the society's history. Previous to the opening of the Exhibition in London the society appropriated a sum of money to be awarded to such of the members as should receive prizes—about 15 were so honored—and they, I doubt not, will with great interest revert to the scene of this evening.

After the President's address, Prof. Norton, of the Albany University, who is delivering a course of lectures on Scientific Agriculture to a class of about 50 students, delivered one of the best addresses it has been my pleasure to hear, on the importance of science to the practical farmer. On Thursday evening the President delivered his farewell address, which was every way worthy of his distinguished reputation.

The society for the first time held an exhibition of Fat Stock, dressed meats, &c., and the display of fine cattle and sheep was such as to do great credit to the State. I understand that this is to be continued as an annual show, and from the energy and enterprise of those connected with the society, and of the farmers of New York, it will at no distant time equal the famous Christmas Smithfield Show in England.

A very fair exhibition of winter fruits was shown—in which the famed apples of western New York were distinguished. But among the most useful of all the articles shown in the fruit department, for the pomologist, the nurseryman, and the farmer, was the splendid exhibition of modelled fruits prepared by Mr. Townsend Glover, Fishkill—apples, pears, cherries, plums, peaches, nectarines, grapes, cranberries, &c., that again and again deceived the people, though mingled with the real fruit. The insects which are common and injurious to plants and vegetation, exhibited, were so true to nature, that the Prof. of Entomology in the university, on examining them, without having been informed of the preparation pronounced them genuine specimens of the insects, a tribute to Mr. Glover which was most creditable. The society, I understand, have secured the insects, and a large collection of the models. Their wisdom in doing this will be appreciated by all who know the importance of the fruit culture in the State. The society awarded Mr. Glover a gold medal for his truly splendid exhibition.

At the close of the proceedings of the society, the premium on farms, dairies, butter, cheese, grains, &c., were announced, and splendid pitchers, cups, medals, &c., awarded to the successful competitors, who hailed from Niagara to Long Island, showing the universality of interest which this great society secures—an honor to the State and to the country.

I have thus given you a rapid sketch of the proceedings, which I trust may not prove uninteresting to your readers.

The next Fair is to be held in Utica in Sept. next, (the 7th, 8th, 9th and 10th.)

Yours, &c. —— ——

ADVANTAGES OF THE FARMER OF THIS AGE.

Within the course of a century, what vast discoveries have been made in relation to the structure of plants and to the vegetable economy in the functions, especially of absorption and perspiration. Science has shown the mode in which plants take up their aliment, the particular *kind* of aliment required for them, and the circulation of the food in the juices of the plant, its changes by respiration and its evacuations by perspiration. These accessions to our knowledge of the vegetable kingdom have been made by degrees, the results of long studies and exact experiments by many different persons. In relation to perspiration, Dr. Hales found that a sunflower lost 1 lb. 14 oz. weight in twelve hours of a hot day. In a dry night it lost about 3 oz. In a moist night little alteration was perceptible.

Haymakers know the rapidity with which grass is dried, which is owing to this perspiration, the juices not being again supplied by absorption, as when the grass was living. It would be interesting to trace the history of these discoveries in vegetable physiology, but would require more time and space than we can now devote to the subject.

A century ago, nothing, it may be said, was known of the vegetable anatomy. Now the structure of plants has become nearly as well known as the anatomy of the human body, though the knowledge of the former is probably confined to a fewer number of persons than the latter.

It is only little more than fifty years since the first suggestion of what were the true sap vessels of plants, was given by Dr. Darwin, and their operation and functions ascertained by experiments of himself and others, followed to more certain results by Mr. Knight. It was discovered from these experiments that the sap ascends through the spiral vessels of the plant, forming in its ascent the alburnum, and descending in the outer bark. This knowledge is valuable to the

farmer, who by this knows that if he would destroy his tree by girdling, he must cut through the alburnum to the hard wood, while if he merely girdles the outer bark of his vine with a narrow ring after midsummer, when the sap is descending, he may much increase his crop of grapes by preventing the descent of the sap, and retaining it for the nourishment of the fruit, without any injury to the vine, if the ring is not made too wide to unite again. The two gentlemen named, with a few others, Mirbel, Malpighi, Grew, Wildenow, Hales, Priestly and others, by a series of interesting experiments, have made us acquainted with the structure and functions of the vegetable world.

To Dr. Priestly we owe the knowledge of the respiratory action of the leaves of plants. And his opinion was, that the inspiration was by the upper, and the expiration by the under surface of the leaf. This fact is corroborated by the use of the cabbage leaf in medical treatment; the upper and smooth side is always applied to the skin, which "draws," as it is termed; while the under side, if applied in the same manner, will have no such effect.

It is true a great deal remains for the research of science to accomplish. "When we attempt," says Dr. Smith, "to consider how the particular secretions of different species and tribes of plants are formed; how the same soil, the same atmosphere, should in the leaf of the vine or sorrel, produce a wholesome acid, and in that of a spurge or machineel a most virulent poison; how sweet and nutritous herbage should grow among the acrid crowfoot and aconite, we find ourselves totally unable to comprehend the existence of such wonderful powers in so small and seemingly simple an organ as the leaf of a plant."

For the New England Farmer.

LUSUS NATURÆ.

BY JACOB B. FARMER.

Mr. Brown:—I have an apple tree that was grafted about 8 years ago with Porter scions; the scions lived, grew, and bore handsomely-shaped, and well-flavored *Porter apples* for 3 or 4 years; but last year the fruit changed its shape, (retaining the Porter flavor, but the flesh a little more hard and crispy) resuming the shape of the parent stock, which was like a blue pearmain. The tree grafted was a healthy, vigorous, and good bearing tree. I wish to know if the change was a freak of nature, or was it in accordance with nature's laws. The above statement may seem strange, but it is no more strange than true. If you or some of your correspondents will give their views on the subject, I think it may lead to some important facts, which, as yet, are not well understood. Yours, &c., J. B. F.

Concord, Jan. 27, 1852.

Remarks.—We never have heard of a case of this kind, before. Will some of the Pomologists take it into consideration?

For the New England Farmer.

PEACH TREES AND SMOKY CHIMNEYS.

BY STEPHEN ADAMS.

Mr. Editor:—The above subjects have been frequently discussed, and it seems to me without any very satisfactory results. Peach trees still die before old age comes on, and chimneys still smoke, notwithstanding all the instruction that can be found has been followed, which seems to prove that there is much misapprehension upon these subjects. Is it probable that the cold kills the peach trees when the thermometer gets to 14° below zero? Why then is there any living peach trees in the State of Maine? In this town I believe the thermometer gets below 14° below zero every year, and more than half the years to 18 or 20 and yet there are peach trees in this town that have borne fruit for twenty years or more. Is 20° any worse for a tree than 10°? Is there any chemical or mechanical change produced upon ice by the temperature falling from 14 to 20 below zero? Does the sudden change from 18° below to 18° aboze zero (as occurred here to-day from 8 A. M. to 12 at noon) produce any deleterious effects? or even if it rose to 50 above, for then there would be no more sap in the cells than there was before it froze at all. It appears to me that should an extreme cold night occur in the fall before there had been much cool weather, the freezing of the sap in the vessels while they are full would burst them, even if they were iron; but we never find such an occurrence as this. The wise Architect has so established his laws that the sun recedes gradually, and cold weather comes on gradually and deprives the trees of their leaves and drives down a portion of the sap, so that what remains is not sufficient to burst the vessels by freezing; and why should the thawing burst them since it is well known that ice is more bulky than the water of which it was made. If freezing and thawing does the mischief we shall be sure to suffer spring and fall, for there is always much freezing and thawing at both those seasons.

It seems to me most probable that the mischief is done by heavy winds when the wood is frozen; wood in this State is very brittle; it will not bend much without cracking; the peach tree sends out long and slender shoots, which are much more affected by the wind than other trees whose limbs are shorter in proportion to their size. I set some peach trees several years ago the north side of my house—they died half way to the ground every winter, and finally died root and branch about five years ago. I set some the south side of my house, which have flourished well so far; these are well secluded from the winds, while those on the north were exposed to winds which most prevail here in cold weather. With regard to smoky chimneys, I think there would not be so much complaint if builders would attend to the brick-laying so as to be sure that the walls of the chimney, and the partition between the flues, should be perfectly air-tight. When my chimneys were built I requested the masons to be very particular to fill all the joints. Most of the surface is plastered, and they draw first rate.

Yours, respectfully, S. A.

West Newfield, Me., Jan. 16, 1852.

Remarks.—Our correspondent is referred to some remarks by us during the last month on the subject of peach blight and frost. It is still our opinion that the peach bud is not injured so much by the intensity of cold as by sudden changes.

The cause of nine-tenths of the smoky chimneys is, that they are constructed upon wrong principles. The back should be perpendicular, and the throat very narrow, say three to five and a-half inches—not over the latter distance in the largest fire-places. As soon as this narrow throat is passed, the back should suddenly recede five or six inches. Constructed in this manner, with flaring sides, and the top of the chimney contracted to about half the size of the flue, there will be little danger of the chimney smoking.

For the New England Farmer.

FLOWING CRANBERRY MEADOWS.

Mr. Brown:—Reason and experience would seem to indicate that cranberry meadows should be flowed for two reasons, viz:

1. Flowing disseminates the seed, especially in such meadows as are comparatively new or the vines thinly set. The water carries the cranberries about and deposits them where the vines are wanting, and this seed creates more vines and causes them to spread.

In the fall of 1850, we sunk a gravel dam across the lower end of our cranberry meadow, say twelve rods long, and left a passage for the water in the centre of the dam with a gate, and flowed the meadow, keeping the water on until the 20th of April following, and then let it off; the effect was to double the amount of cranberries the first year.

2. Water will leave a deposit that enriches the soil where it has stood, a considerable length of time, and then let off: that deposit was the cause of the increase of my cranberries. What else could it be? But does Dr. Shurtleff "controvert" the propriety of flowing cranberry meadows *absolutely?* I do not so understand him, at least he does not quite say it in his communication on cranberries of last week. He says keep dry by draining, &c., which I approve of—still I would annually flow for the reasons stated above. Also keep dry, he says, to prevent frost; but the water will prevent frost most certainly while it is on, and will have no effect to produce it we think when taken off. From a Subscriber.

Uxbridge, 1st mo. 30, 1852.

Agricultural Capabilities of Liberia.—The soil is as rich as it is at the Cape of Good Hope, and peculiarly adapted for the cultivation of cotton, though since the colonists have commenced to raise it none has been shipped, but this is to be attributed simply to a want of means. It also produces coffee of a very superior quality, from which immense wealth could be derived, if extensively cultivated. Rice and tobacco have also been sown with the best results. It is stated that several manufacturing firms in England have united in an enterprise to test, by actual experiment, the possibility of procuring cotton in large quantities from the west coast of Africa; and have subscribed $100,000 to carry out their objects. Hitherto the principal drawback has been a want of means.

For the New England Farmer.

THE HONEY BEE.

Mr. Editor:—I wish to know if you can assign any reason why swarms of bees so frequently die in winter, and sometimes in other seasons of the year, without any apparent cause. There have been a number of cases about here, in which plenty of honey was found in the hive, and not the least appearance of worms, or of being killed by other bees or insects. I have just seen two such cases; one was a last year's swarm, the other was a year or two older. I should also like to know if there is any way to prevent their dying in this manner. Yours, &c.,

A Subscriber.

Groton, Jan. 31, 1852.

Remarks.—We have heard the same complaint several times within a few months. Although keeping several swarms, we have suffered no damage in the way spoken of above. Our destructive enemy is the moth. If a swarm becomes weak, that is, few in number, it is said that it is pretty sure to die during the winter, even if plenty of honey remains in the hive. In such cases they usually seek preservation by joining a stronger and more populous swarm before cold weather sets in. Perhaps some one who has had much experience can answer the questions of our correspondent, and we hope will do so.

PROFITS OF A SMALL DAIRY.

Mr. Editor:—Several of your subscribers have told us of their success in raising and fattening pigs—one writer giving, at the same time, an account of the profit, or rather what the pork cost by the pound. If agreeable, I will give you an account of the profits derived the last season from two cows and three heifers—two of which were four years old, the other two years old.

Two calves sold at about a week old, at $1 each	$2,00
Two calves, sold at $4,25 each	8,50
One heifer calf raised, which I value at	8,00
Sold the proprietor of the U. S. Hotel, Portland, 596 lbs. of butter, for	99,33
18 lbs. butter, sold in small parcels, to others	3,00
Cheese sold	10,49
Total	$131,32

Then we must notice the amount of butter, cheese, milk and cream, consumed in a family of five persons, together with a hired man about one-half of the time, through the summer. This we will suppose to be equal to the yield of the two years old heifer and one of the others. If so, then we have a profit of one hundred thirty-one dollars and thirty-two cents from three cows, and one of them only four years old. This will give a fraction over forty-three dollars per cow, to say nothing of the milk, buttermilk, &c., known to be valuable as food for swine.

One of my cows and two of the heifers are a cross of the Durham short horn and native breeds, and the others I suppose to be pure natives.

My rule is, in winter, to give the cows as much good English hay as they "will eat up clean," salt, a plenty of good water and warm shelter. In summer, a good pasture, careful not to overstock;

and the benefit of early fall feed, whatever may be said to the contrary.

You will see, by the above statement, that I received only 16 2-3 cents per lb. for my butter. This was owing, in part, to the crowded state of the market at the time. Had I received 20 cents per lb., the profit, per cow, would have been something over fifty dollars.

In conclusion, I will merely say that I have as yet made but little progress in improvements, nor would it be the part of wisdom to promise too much; but perseverance in a good cause we think is rather laudable.—*Maine Farmer.*

FARMERS' CLUBS.

Now is the season for farmers' clubs to hold their meetings. Nothing has yet been devised more likely to advance the best interests of agriculture, than farmers' clubs. Every district has a school house, and such meetings may be held without expense. If the farmers of a neighborhood get together and spend a single hour at a conversational meeting on agriculture, some good result is sure to follow. The conversations at these meetings should not be conducted diffusely, but a chairman should be appointed, a subject chosen, and such members as choose to speak should address the chair on the subject of the evening, and in this way the reading and experience of all present will become the common property of the neighborhood. We have attended many such meetings, and never without learning some new and valuable fact.

Winter evenings are long, and at this season of the year, when the farmer is not required to rise as early in the morning as in summer, he can sit up to a later hour, if necessary or profitable, and therefore should, as often as once each week, meet his neighbors to communicate and receive information. A farmer must have been slothful indeed, if during the past year he has not learned one new fact in relation to agriculture; and should a hundred neighbors meet and each communicate one new fact, then each will learn ninety-nine new facts for one communicated. Those who repudiate the use of books, could have an opportunity of learning without their use, and they need not fear being decived by some ingenious theorist—for with 100, or even 20 farmers present, the theorist would find it difficult to propagate an error, where all felt free to contradict his views.

Merchants, manufacturers and mechanics hold such meetings, and why should not farmers? Can any one man working alone on his farm, learn as much as 100 men? May not each discover some practical fact, and should not his neighbors know it? How else can the improvements of the day be made known?

Take your sons and workmen to these meetings, and they will learn to respect an employment which calls into active use the talent of all. If you have a sick animal, you may have advantage by the experience of all your neighbors, and probably save the life of the animal. If you have excess of crops, such as are usually used on the farm, or are short of others, may you not at such meetings learn where you may sell or exchange? Do not such meetings tend to soften asperities, cement friendships, and do away with peculiarties of temper, which always occur with men who work alone? We would sooner forget much of our reading, than to lose the recollection of such practical improvements as we have been acquainted with at farmers' clubs.—*The Working Farmer.*

FIFTH AGRICULTURAL MEETING,

AT THE STATE HOUSE, FEB. 10, 1852.

Subject for discussion—MANURES.

Hon. AMASA WALKER, of North Brookfield, presided at the Agricultural meeting on Tuesday evening. On taking the chair he said that the subject for discussion was the most important of any connected with farming. If the scholar is asked, what is power, he will reply, knowledge; if the same question is put to the political economist, he will reply, money; and if it is put to the farmer, he would say *manure*, for with it I can do anything, and without it I can do nothing. This statement is emphatically true in regard to New England, where all the fertile properties of the soil have been exhausted by long tillage. Manure is our only resource for renovating and restoring those properties. To illustrate this fact he mentioned an experiment of his own, the result of which was, that from a piece of land which five years ago yielded but three-fourths of a ton of hay, he now cuts seven-and-a-half tons of excellent quality. In producing this result there was no mystery. It is only what every farmer may do by a judicious application of manures. It is what might be done on almost every acre of land in Massachusetts, if farmers could but get manure sufficient. But here is the difficulty. Manure is scarce. The amount of natural manure is limited, and thus the farmers are thrown back upon other resources. The great question is, then, how can the quantity of manure be increased? Farming has been justly defined to be the science of manuring. If this is so, what does this science teach us? It teaches us, *first*, to preserve our natural manure; *second*, to augment the quantity as far as we can by means within our reach on the farm; and *third*, to adapt our manures to our soils. First, as to preservation, manures are of two kinds, solids and fluids. In former days the latter were considered of but little if any value, but now they are generally considered to be as valuable as the former. All are now persuaded of the necessity of cellars under barns, or of sheds where their manures may be covered up, and preserved from the exposure to the sun and rain. Formerly, he believed one-half of the value of manure was destroyed by being thus exposed before being taken on to the ground. As to augmenting our natural manures—he said nature has provided abundant resources in our meadows of peat and other substances. This muck he would bring up, and expose it to the atmosphere for two years, and then place it in his barn cellar to ab-

sorb the liquids, and form part of his compost heap. There are many resources of this kind for which farmers should keep a watchful eye. As to the application of manures, reason tells us that different soils need different manures, and this fact science proves. This is one of the most important considerations connected with the subject. This knowledge of the application of manures is all important, and there is no correct way of obtaining it but by an analysis of the soil. But few understand how to do this. There is no general system to tell us how to restore our worn-out pastures and other lands, and therefore we need the light of science upon this point. At this point, science comes to our aid, and by analyzing the soil, tells us what ingredients are wanting and what manures to apply to supply those ingredients.

Mr. FRENCH, of Braintree, said the subject of the acquisition of fertilizing matters and their judicious application to the soil, is one second in importance to no other, to the people of Massachusetts. Without this fertilizing matter we should make but poor headway. This, in some cases, is expensive. He had found by inquiry, in different sections, that the expense when a full cord in bulk was obtained, would not vary far from $7 per cord. A cord carefully measured would contain 103 bushels ; liberally measured, 100 bushels, —making it cost 7 cents a bushel. From this estimate, farmers could see the cost of their manures, and judge in regard to the profit of applying them in large or small quantities. Farmers ought to turn their attention to the accumulation of manures in every possible way. Most farmers carry out the manure from their yards between the 1st and the 11th of May. The yards are scraped perfectly clean, and the droppings of the cattle which are thrown out between that time and the time of turning out the cattle (usually the twentieth of May) is mostly lost by its being exposed to the rays of the sun. There ought to be a covering of muck spread over the yard. The same course should be adopted in regard to the piggery, the privy, &c. In regard to the application of manures, he had tried various quantities. He had put on twelve cords to an acre; but this he thought was too much. He would put on less and plow more. He was was strongly in favor of a thorough subdivision of the soil. He had used bone dust as a manure on light sandy soil—(30 bushels to an acre) with great results. He had also found his account in sowing six or eight bushels of refuse salt to an acre. It operated well in destroying worms. In his region, on the sea-shore, no benefit had been experienced from the use of plaster.

Mr. BRIGHAM, of Westboro', did not believe the people of Massachusetts were generally so ignorant in regard to the adaptation of manures to soils as the chairman had intimated in his remarks. He believed that so far as stable manures were concerned they might be advantageously applied to all soils. He would allow that they might be injudiciously applied. He did not believe that the farmers of the State were obliged to cultivate the same amount of land from year to year and that they were not able to increase this amount—but he did believe that the farmers of Massachusetts might, by judicious management, be increasing their amount of manures annually and at the same time increase their crops, stocks, &c. He was in favor of cellars under barns. The system pursued in his town, where most of the farmers were engaged in keeping stock for milk,—and which had resulted in enabling the farmers to increase both their stock and their crops —is to keep their cattle in the barn all winter, and to keep them tied up during the summer nights. In this way a great saving of manure was made. In conclusion, he asked for information in regard to the best mode of treating lands which lay so that it is difficut to get manure on to them, such as worn out pasture lands. He had made one experiment, of plowing in a crop of buckwheat, but obtained no benefit from it.

Mr. SIMON BROWN, of Concord, said that in some cases it was as important to tell what we ought not to do, as what should be done. He once had a conversation with a person employed to enrich a piece of ground around a public building for the purpose of setting out shrubbery and trees in it. This person said he had purchased the manure of a stable for a year, to which he intended to add a number of casks of lime in order to "cut up" the whole and bring it into a fine compost, and inquired whether this would not be the true course to pursue. Mr. Brown thought it would be injurious. The gentleman seemed surprised at this, and thought lime might be applied to advantage. He did not understand that all animal manure contains a certain amount of nitrogen which the application of lime separates from the manure and allows it to escape. But lime may be used in small quantities on coarse vegetable substances which need to be reduced before they can be conveniently applied to the soil. Another important matter is too often overlooked. When the compost heap is overhauled, or moved, it should not be allowed to remain uncovered one hour. People would be surprised were they to spread a sheet over a heap left uncovered over night, to see what collects on it during that period. Where manure is hauled out, and left uncovered, it will lose a large portion of its fertilizing power in a few days. He referred to old Jethro Tull's theory, that with constant stirring and pulverzing of the soil, manure might be altogether dispensed with. This, he said, was of course an exaggeration, still, with more perfect tillage much less manure would be required. A well

pulverized soil would absorb the dew and fertilizing substances from the atmosphere, which could not penetrate a hard-crusted soil. He showed, by the relation of an incident which came under his own observation, how a limited and partial knowledge of this subject would lead a man into a wrong course of practice. What we want, he said, in conclusion, is, that these plain truths shall be better and more thoroughly understood; that our farmers shall know how to *save* their manure when they have once obtained it.

Mr. Brooks, of Princeton, would place science, in its application to farming, not in the first, but in the second place; practice should come first; by this practice we should get our facts and build our theory or science upon them. He believed that one spear of grass would produce another, and that two spears would produce three others, &c. So he believed that one pound of hay would produce two and a half pounds of solid manure, and chemists say that the liquid will be of an equal amount. If this is so, there will be five pounds of manure from one pound of hay; upon this ground he argued, that every farmer possesses fertilizing matter enough, and more than enough to keep his land in good condition, and still to sell one-third of his crop. He had used plaster in renovating his lands—applying 100 lbs. to an acre. This he had done for some years without seeing any good effects from it; but in the fifth or sixth year he got a very good crop of clover. Barn cellars he thought saved one-third of the manure. Where he formerly used 24 cords, he now uses 16 cords. As an experiment, he had this year covered his cow-yard, and thought the result so far had been good. He thought composting in the field is best. His compost heap generally weighs 48 lbs. to a cubic foot; and when kept over one year, 43 lbs.—whether this is a loss in the power of production, or mere weight, he could not say. Hogs he thought might be made great sources of manures. He tried an experiment with a pig weighing about 140 pounds, and the result was that he produced seven pounds of manure in twenty-four hours. This would bear composting with meadow muck on the ratio of one to 4 or 5—and make a rich compost. Four pounds of meal he said would make a pound of pork.

Mr. Coffin, of New Hampshire, defended science as applied to agriculture from objections sometimes urged against it—and advocated its benefits to farmers. He doubted the correctness of Mr. Brooks' statement, that one pound of hay would produce five of manure. A part of it would be consumed in forming the bones, flesh and muscles of the animal. Bone-dust he thought could be advantageously used on lands which require phosphoric acids; plaster on lands which need sulphate of lime, but not on those which contain sulphate of iron. Guano contains scarcely a particle of mineral substance. It is mostly ammonia and unless covered up immediately its virtues will be wasted upon the atmosphere. He approved of Mr. Brown's views in regard to the application of lime. It sets the ammonia free in animal manure and allows it to go off in the atmosphre enriching the farmers neighbor as much as himself. It is useful to decompose swamp muck, and also to neutralize the effects of sulphate of iron—which is often found in rocks in our fields and pastures.

Mr. Holbrook, of Oregon, made a few remarks relative to the great Agricultural resources of the country, and was followed by

Maj. Wheeler, of Framingham, who, in reply to Mr. Brigham's question, how best to restore pasture lands, recommended the use of plaster, at the rate of two bushels to the acre. The meeting then adjourned.

The subject for discussion on Tuesday evening next is *Farm Stock*. Hon. Edward Everett will preside.

A Mowing Machine.—The Poughkeepsie Eagle says that a machine for mowing, manufactured in the western part of this State, has recently been introduced into Dutchess County, which will probably prove of great advantage to farmers. It is warranted to cut and spread an acre an hour of any kind of grass, with a pair of horses, on all lands free from obstructions, and do it as well as it can be done with a scythe by the best of mowers. The machine is simple in its construction, and can be managed by any boy capable of driving a pair of horses. It is highly recommended by a large number of farmers who have used it with success in the western and central part of the State.

☞ We have received a note from an esteemed correspondent, (*) in relation to the closing part of the meeting at the State House, on the 2d inst., and perfectly agree with him when he says—"I thought the best way to notice them was *not* to notice them at all!" We shall be glad to have a personal interview with our correspondent.

He closes his note by saying—

It struck me that the remarks of most of the gentlemen who spoke at this meeting, were to the point, and highly appropriate. It was surely proper to illustrate the application of the principles of science, to the ordinary purposes of life. And also proper to point out distinctly, what is to be asked of the Legislature. The subject has been long enough under discussion to come to a point. And it is to be hoped that no *flaw* will spring up to capsize the *barque*, which now seems so near the haven of safety.

February 5th, 1852.

☞ The Duke of Northumberland has ordered the construction of a thousand cottages upon his estate in Northumberland, for the accommodation of the working classes.

For the New England Farmer.

N. Y. STATE AGRICULTURAL SOCIETY.

BY WM. BACON.

[From our esteemed correspondent, W. BACON, Esq., Richmond, Mass., we have received a particular account of the *Winter Exhibition* of the society mentioned above. Having received and published an account of it already, we omit a portion of the one before us, but give the remarks which follow his description of the exhibition.]

Among the thousand and one interesting things which gave beauty, spoke of utility, and added interest to the exhibition, were models of fruit, the leaves and wood of fruit trees and vines, and insects that depredate thereon, prepared in plaster by Townsend Glover, of Fishkill, N. Y. Of these he presented some 160 of apples; 160 of peas; 60 of strawberries; 80 of plums; 30 of cherries; 19 of gooseberries; 5 of apricots; 11 of nectarines, &c. &c., all so natural in form, color, and indeed every peculiarity, that the most fastidious connoisseur could not help fully recognizing in them the faithful portraiture of the varieties they represented. Mr. Glover is entitled to much commendation for the aid he is thus giving the Pomological world, in helping them readily to settle the nomenclature of fruits, and we hope our horticultural societies will help themselves and him, by introducing sets of his models into their cabinets.

The officers of the society for the ensuing year were chosen at this meeting, and are, Henry Wager, of Oneida, President; E. Corning, Jr., of Albany, Recording Secretary; B. P. Johnson, of Albany, Corresponding Secretary; Luther Tucker, of Albany, Treasurer; and Utica was designated as the place of holding the next fair.

The continued and increasing prosperity of this society must be a matter of strong congratulation to every farmer that has a decent respect for his profession through the land. Why should it not be? It is the lever that is moving and is to move effectually the agricultural destinies of the nation.

But it is not to these exhibitions alone that the society may look in truthful trust for the secret of success or the triumphs of a wide-spread influence. The volume of transactions she annually sends out among the people, telling the tale of truth wherever it goes, must, though noiseless in its operations, accomplish a work which no other means can effect. Who can look upon its plates of prize animals and not see that there is a degree of perfection to be attained in raising stock that he has not approached. Do not say you "*can't do it*," brother farmer. You are unworthy of the *name of farmer* until you have made a decided, persevering trial. It is just such farmers as you are that hang like an incubus on our profession, to keep it in the back-ground and cause the tauntings of reproach to fall upon it. It is no wonder if your sons look with a species of contempt on the profession of their father, and hurry away from home to seek employment in the miasma of towns in some calling more honorable than that which your "*can'ts*" are daily bringing into disrepute.

Who, too, can read of the crops which thorough cultivation brings and not feel that his own glebe is susceptible of a higher state of improvement, or who can see or read of the richer fruits which in their freshness fall to gladden the palate of his neighbor, and not feel constrained to exchange the little, sour, puckery crabs which his own matted topped, moss-embowered trunked trees produce for something to gratify his own taste? All these things and many more of equal or greater importance these annual volumes of transactions scatter information upon. They are a treasure every farmer ought to possess and read. The farmers of that State undoubtedly appreciate them. If they do not, we do, and would not willingly be without them.

Yours truly, W. B.

Elmwood, Feb. 3, 1852.

For the New England Farmer.

PREPARATION AND USE OF MANURE.

BY A. G. SHELDON.

A practical farmer knows he needs all the manure he can conveniently make; and that in order to make it properly, a barn cellar is necessary. Let this cellar be a reservoir for all his manures, that they may be thoroughly mixed, and let this cellar be the home for his hogs, and his horse manure their bed. Let him add to the droppings of the cow, *fresh earth*, at least once each week, to absorb all the liquids; this will give fresh earth for the hogs which is quite beneficial to them even in the winter. If he intends his manure for upland, let him obtain his earth from the swamp, and previous to putting it in the cellar let it be exposed a sufficient length of time to the air and frost, that it may become thoroughly pulverized. If he wishes to use his manure in reclaimed swamp, let him take his earth from the sand bank. Early in April clean out the barn cellar, place the manure in a pile in a warm, dry place, mixing all the parts together thoroughly, leave it in the pile as light as possible, cover it with loam and let it remain until time to plant.

The preceding remarks have reference to the treatment of the manure collected in the winter.

In the summer, if your cattle lie in the yard, cover the surface of the yard with loam or pulverized meadow-mud, having reference to the land on which it is your intention to use it. Every morning throw the droppings of the cattle on the pile, covering them with double the quantity of the material with which the yard is covered; or if the cattle are tied up, be careful to add each morning to their droppings double the quantity of mud or loam.

Before the ground freezes in the fall, place the summer manure in a pile, or piles, near where you expect to use it, scraping up all the covering of the yard not used, and thoroughly mixing it with the piles, then cover the piles with loam, and this is ready for use at any time.

Now a few hints as to the application of manures. For a garden, spread the manure in the fall, and turn the furrows together; this covers all the manure and leaves hollows for the water to soak into the earth without drenching the manure. In the spring you will find the manure decomposed and the soil thoroughly impregnated with its strength.

If the manure is to be used for corn, spread and plow in the coarsest, put a small quantity of the finest in the hill to give the corn the first start. This latter remark applies particularly to dry land.

If the land is not dry, first plow the ground, spread the manure, turn the furrows together and plant the corn (or potatoes) where the furrows meet. The above is intended to apply to old ground. If you wish to plant a piece of very wet grass land, spread your manure on the grass before plowing, turn the furrows together, plant where the furrows meet, which leaves the seed on the level of the surface of the earth.

If you wish to apply manure to a young orchard, the best way is, if manure is plenty, to spread over the whole surface and plow in; if you are short of manure, be sure and put what you have as far from the body of the trees as the feeding roots are. To apply manure near the body of a tree is as inconsistent as to apply milk to the skin of a calf instead of to his mouth. A. G. S.

Wilmington, Feb. 11, 1852.

For the New England Farmer.

PHTHISIC IN PIGS.

Mr. Editor:—Can you inform a subscriber, what is the cause of pigs having the phthisic? Is it a complaint they are by nature subject to? It must certainly retard their growth and fatting very much.

Can you inform me by what process the Shakers pulverize their thyme and other herbs, that we see in tin canisters?

A Constant Reader.

Jan. 29, 1852.

Remarks.—The difficulty inquired about above, is undoubtedly occasioned by exposure. A large proportion of the pigs fatted in New England are brought from the West. They are often driven till nearly exhausted with fatigue, and then, without sufficient food to keep up the accustomed stimulus and warmth, they are obliged to remain through the night in bleak and perhaps wet places, where they not only contract colds which produce coughs, but rheumatic diseases which often deprive them of the use of their limbs. Pigs lying on plank floors with cracks in them where the wind comes up while the animals are sleeping, are very likely to have colds and rheumatism. Wallow as they will, there is no animal that likes a dry nest better than the pig; and if you intend to make anything out of him, in addition to good wholesome food, you must give him a comfortable bed to lie and digest it in.

The Shakers get their herbs pulverized at the "Forrest Mills," in Lynn.

Trees.—While we are cutting down our noble trees with a rapidity which posterity will deplore, a French chemist has been experimenting for five years to ascertain whether it will pay to stimulate the growth of trees by manuring them. It appears from his experiments that the residum of soda and potash works, freely scattered in woods, will augment their productiveness one hundred per cent.

☞"Ours is no common lot," as the hogs said when they got into the clover field.

For the New England Farmer.

NAMELESS POTATO.

Mr. Brown:—I have taken the liberty to forward to you a small parcel of potatoes, directed to the "care of Shaw, Provision dealer," No. 2 Cross Street, Boston. I do not know any name for the potatoes, and they are very scarce in this region; indeed, I do not know of their having been raised by more than one person besides myself in this vicinity.

The peculiarity of the potatoes is, that they come to maturity so early as entirely to escape disease, at the same time that they attain good size and remain perfectly fresh and sound through the winter.

I had but half a dozen of the potatoes three years ago, from which the yield last year, (the third planting) is about 45 bushels. The year before the last these potatoes were planted in the same field with Carter's and Chenangoes, and were every one sound, while both the last mentioned kinds were two-thirds worthless, on account of disease. For the whole three years these have proved perfectly sound. I think therefore that the use of this kind of seed comes nearer to being a prevention of disease in potatoes than any I have heard suggested.

Should you, on examination, think them worthy of attention, please notice them.

Very respectfully yours,

L. Matthews.

Cornwall, Vt., Feb. 4, 1852.

Remarks.—We are obliged to friend Matthews for his favor; we will cook and plant some of the potatoes, and report progress. The potato *resembles* what is known in this part of our State as the Early White. It comes a little earlier than the Chenango, and is an excellent potato.

☞ To Correspondents.—We are encouraged and strengthened by the increased interest so plainly manifested in our favorite pursuit. Agriculture is inviting into its service many of the best minds in the country, and these minds are seeking mediums of imparting the results of their investigations to the world. This interest is evident in the communications made on the various departments of farm husbandry, and the qualifications requisite successfully to pursue them. They have increased upon our table, and have been delayed, until we fear some of our correspondents may have become impatient. They are assured that their favors are not only appreciated, but that the beneficial influences of the paper will depend in a considerable degree upon them. We gather our weekly harvest from among them, as they seem to us most suitable for the time.

Vertical Gate.—The editor of the *Plow* may inform his correspondent at Osceola, N. Y., that the patentee of the Vertical Gate is *Lorenzo Smith*, of North Easton, Mass. The price for a town is $10,00 for each thousand inhabitants.

Hogs.—The number killed at St. Louis up to Jan. 7, was 40,000 head.

At the different packing points on the Illinois river, the number killed up to the 4th of January, was 44,000, against 79,500 to the same time last year.

At Evanville, several thousand more have been killed than last season. Up to Tuesday last, 326,-426 hogs had been slaughtered in Covington and Cincinnati, against 307,200 to the same date last year.

A correspondent of the *St. Louis Intelligencer* says that in Schuyler and Cass counties there have been packed this year 30,191 head, against 47,-000 hogs last year.

The *St. Louis Republican* says :—We were informed yesterday by a gentleman engaged in the pork business, that there will be but little meat barrelled in St. Louis the present season. The principal cutting has gone into bulk sides for bacon. Hams, too, will be scarce, for principally they have been taken for Eastern account in sweet pickle.

☞ Wendell Phillips says "we live under a government of men—and morning newspapers."

Horticultural.

FRUITS OF OBSERVATION.

BY PROF. FENNELL, IN THE JOURNAL OF THE HIGHLAND AG. SOCIETY IN SCOTLAND.

It is said that the occasional natural union of the boughs of distinct trees demonstrated the practicability of grafting, and that the observation of the circumstance of a vine shooting more vigorously after a goat had browsed on it, suggested the valuable art of pruning fruit trees.

In the sixty-third volume of Philosophical Transactions, we find it related that M. Mustel, having observed that some of the flower buds of an apple tree had been gnawed off by a snail in such a manner that all the petals and stamens had disappeared, being eaten close up to the calyx, which, together with the basis of the pistillum and the embryo, were left uninjured, concluded that those imperfect flower buds would bear nothing, but was soon convinced of his mistake. Nearly all of them bore fruit ; the apples were perfectly formed, and six or seven pretty large ones were seen upon each bunch. On the other hand, the snail had spared some other bunches which it could not so easily get at ; but out of ten or twelve flowers in each of these bunches, not above one or two showed any signs of fruit. This suggested to M. Mustel the idea that, when the flowers of trees are full blown, the prevention of the natural fall of the petals and stamens gives a greater assurance of the fructification—a fact which he several times proved ; for having cut off with the scissors the petals of apple, pear, plum and cherry blossoms, close to the calyx he found that almost every one of them bore fruit, whilst several of the uncut flowers bore none. Thus did a snail teach him how to render a tree more fruitful.

One of the Emperors of China having noticed that a particular stalk in his garden produced better rice than the rest, cultivated it for several years ; and, then, having fully satisfied himself of its superiority, he distributed its grains among them for their general benefit. A Sussex farmer having remarked that some gooseberry bushes, growing under an elder tree, were exempt from the attacks of caterpillars, was induced to try the efficacy of a decoction of elder leaves in destroying the grubs that infested his turnip crops, and he and other farmers who tried the experiment found it successful.

Rose.—Professor Agassiz, in a lecture upon the trees of America, stated a remarkable fact in regard to the family of the rose, which includes among its varieties not only many of the most beautiful flowers which are known, but also the richest fruits, such as the apple, pear, peach, plum, apricot, strawberry, raspberry, blackberry, &c., namely, that no fossils or plants belonging to this family have been discovered by geologists ! This he regarded as conclusive evidence that the introduction of this family of plants upon the earth was coeval with, or subsequent to the creation of man, to whose comfort and happiness they seem especially designed by Providence to contribute.

Rose Insects.—If our lady readers are desirous of keeping their rose bushes free from the small green vermin that so frequently infest them, the following remedy will be found a most effectual one :—To 3 gallons of water add one peck of soot and one quart of unslacked lime. Stir it well—let it stand for twenty-four hours, and when the soot rises to the surface skim it off. Use a syringe for applying it.

Mechanics' Department, Arts, &c.

CURIOSITIES OF STEAM.

There is a question connected with steam which is more strange than any, and yet we seldom hear it mentioned. It is this : water at 212° gives off steam ; this steam is totally different in its nature and action from water, and yet it is only 212° also. Why does not the water, at 212°, all flash in a moment, like gunpowder, into steam—that is, into 1700 times its original bulk ? We cannot tell ; we only know it does not do it. It has been proved by Faraday, however, that water perfectly purged of all atmospheric air, (which all water contains a portion of,) when heated to 300°, explodes instantly—that is, all flashes at once into steam. There is another property belonging to water not so universally known to engineers as it should be, namely, all the water in a boiler will become steam in a given time, when subjected to a constant heat and great pressure. If a certain amount of water, at the heat of melted ice, be put into a vessel, and a lamp applied to the same, it will be found that if the time occupied to bring the water from melted ice to 212° (the point where steam commences to be given off,) be noted, and the lamp kept at the vessel for 5 1-2 times longer, all the water will be changed into steam ; it follows then, that if a certain amount of heat be applied to water, for 5 1-2

times the period it took to raise the temperature from that of melted ice to the steam point, all the water will be in a state to flash at once into 1700 times its original bulk. A cubic foot of water, converted into steam, occupies 1700 times the space it formerly occupied, if not compressed; and two cubic feet of water converted into steam, occupy a space of 3400 feet. The pressure exerted by such an expansive force is tremendous. If frozen water has burst cannons, is it to be wondered at that heat and water burst boilers? Every engineer should be thoroughly acquainted with all the known chemical and mechanical properties of water and steam. The observations of eminent practical engineers are very valuable; they are situated to observe the phenomena of steam, and there may be many not generally known.—*Scientific American.*

MAKING HOOKS AND EYES.

The *New York Evening Post* has a letter from a correspondent in Connecticut, from which we copy the following:

Upon the premises we were shown the works of the Waterbury Hook and Eye Company, where a capital of $16,000 is employed in the manufacture of hooks and eyes. Here were arranged long rows of little machines about the size of small washstands, under which a constant shower of feminine conveniences was pouring down, but from what cause or what agency it was difficult to conjecture. Upon a closer inspection, a large spool of wire was perceived revolving slowly in the rear, growing shorter inch by inch in mechanical harmony with the machinery, while iron fingers curiously articulated were ready to grasp the severed fragment, and pass it along from change to change until it finally dropped into the receptacle beneath, a perfect hook or eye, ready for use.

For a moment it seemed as if each machine was instinct with life and intelligence. The power of speech seemed to be all that was wanting to complete the delusion. There were but four or five men in the room, who passed around occasionally from one stand to another, to oil the machinery, to supply new wire when the previous spool was consumed, or to empty the vessels when filled by the silvery shower. The whole performance more resembled the voluntary process of nature than the result of mechanical art.

The duty of the superintendent of one of these machines seemed to me curiously alike to that of the gardener who plants his peachstone, which, after many days, sprouts, grows into a tree, blooms, and finally bears peaches, which, when ripe, drop from its branches, and are gathered for use.

PAGE'S ELECTRO MAGNETIC ENGINE.

It will be recollected that Congress gave $20,000 to assist Prof. Page in perfecting his application of Electricity to Locomotion; and it appears from the following testimony of "Prof. James J. Mapes, consulting Engineer," that steam may yet have to give up to lightning, in the matter of steamboats and railroads. He says:

"After combatting against the friends of Electro-Magnetism for many years, I do not willingly give up my preconceived notions on this subject, and it is only after due investigation that I am constrained to say that Dr. Page has fully succeeded in demonstrating the practicability of his invention.

Admitting the success of Dr. Page's engine to be attained, its advantages are numerous and invaluable.

The cost will be less than a steam engine of the same power.

The weight will be but one-quarter, if boilers and contents be taken into account.

The expenses of firemen and engineers are dispensed with.

Buildings, and stocks of goods and vessels, may be more cheaply insured than when steam engines are used, as there could be no *risk from explosion or fire.*

The expenses of Dr. Page's engine are only active while the machine is positively in action, whereas, an ordinary steam engine continues its expenses whenever the fire is burning.

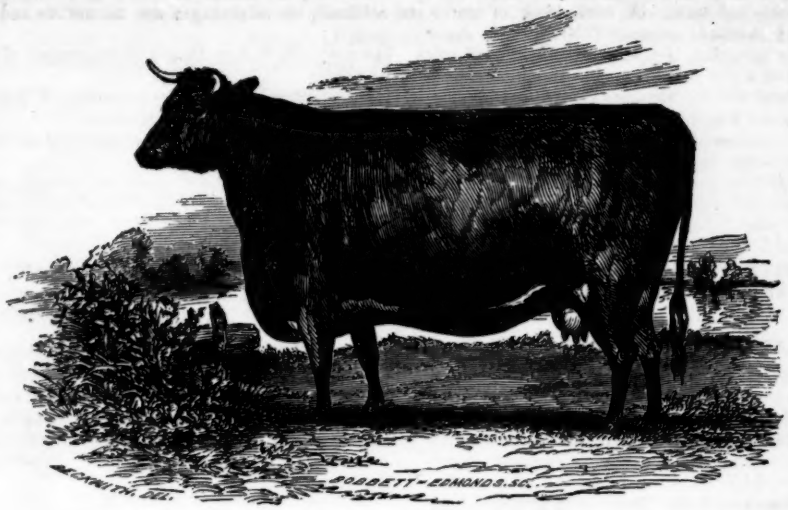
Dr. Page's engine, if used ten times during the day, of six minutes each time, would have but one hour's expenses for the day; whereas, a steam engine, under similar circumstances, would be subject to nearly or quite the full expenses for fuel for twenty-four hours, or equal to the expenses of continuous work.

RUSSIAN SHEET IRON.

Russian sheet iron is manufactured by Mr. W. Devees Wood, at the McKeesport Iron Works, a few miles above Pittsburg, on the Monongahela river. It is described as a beautiful article, with a smoother surface, a finer gloss, and a richer color, than any sheet iron made in Russia.—*Ex.*

The process of making Russia sheet iron has long been kept a secret. A few years ago, a person made application to Mr. Burke, then Commissioner of Patents, to see if he could not be protected in its manufacture, as he had discovered the secret. In England he could have secured a patent; our patent laws afforded no protection to the introduction of a new art. Mr. Burke mentioned in his report, that it would be well if some protection could be afforded to the introduction of such a useful art; we entertained the same views, and do still. We know nothing about the manufacture of the iron, except what is stated in the above extract, but we have been told frequently that the process was a very simple one, when understood. —*Scientific American.*

Improvement in Permanent Moulds for Casting. —Mr. Nathan Mathews, of the firm of Edwards, Morris & Co., of the city of Pittsburg, Pa., has invented and taken measures to secure a patent for a most excellent improvement in moulds for casting. There is a great deal of difficulty attendant upon the casting, in permanent moulds, of articles requiring dovetails, and similar tongues and recesses in them, owing to the difficulty of separating the article from the mould; this improvement obviates this difficulty in a great measure. The parts of the mould which form the cores of the dovetail of a circle plate of a lock, or door knob, made of glass, porcelain, stoneware, &c., can be withdrawn easily, and so can all the other parts. The improvement will effect a great saving in the casting of such articles, both as it respects the producing them more sound, and the saving effected by obviating the damaging of work.—*Scientific American.*



DURHAM COW AZALIA.

This cow took premium as "the best cow over three years old," at the N. Y. State Fair last autumn. In many sections of the country the "Short Horns," of all kinds, are only known by the name *Durham*, although the Yorkshire, Lincolnshire and Alderneys are included under the term "Short Horns." For a long period the counties of Durham and Yorkshire, in England, were celebrated for their short horn cows, and particularly on account of their reputation as extraordinary milkers. In the description of Youatt, of the short horns, in speaking of their milking qualities, he says "it may be asserted on the best evidence, that, as a breed, they have never in this particular been equalled. Speaking of the breed, generally, he says that they were of large size, thin-skinned, sleek-haired, bad handlers and rather delicate in constitution; that they were slow feeders, producing an inferior meat, not being marbled, or mixed fat and lean."

If this description was *once* true, these cattle have wonderfully changed; for we certainly find the reverse of all this now, as far as beef is concerned. We believe the opinion is prevalent that the short horns do not lay on fat quite as fast as the Devons, but that they furnish some of the best beef we have in the market, cannot be doubted.

As milkers, the short horns stood very high some years ago, and particularly at the South; but as the Devons have become better known, they have, in a considerable degree, gained upon them in public favor.

It is our intention to give portraits from time to time, of some of the animals which have been considered good specimens, but not to express decided opinions of their comparative merits in these cursory notices.

SIXTH AGRICULTURAL MEETING,

AT THE STATE HOUSE, FEB. 17, 1852.

SUBJECT FOR DISCUSSION—*Farm Stock.*

The sixth meeting was held last Tuesday evening, Hon. EDWARD EVERETT in the chair.

Mr. EVERETT, on taking the chair, made a beautiful and eloquent address, of which we have room to give but a very brief synopsis. In commencing, he said, he did not take the chair either as a practical or a scientific farmer, but rather in the capacity of a citizen deeply impressed with the importance of Agriculture as the great leading interest in the community—that interest which not only clothes and feeds the rest, but which is also the great depository of political power. The subject of *Farm Stock* is a great and important subject—one of the most important connected with agriculture. To show its importance, the eloquent gentleman first viewed those departments of husbandry which relate to the tilling of the soil, and the use of farming implements, showing what they had to do with inorganic substances, with mechanical properties and with chemical affinities. From this he passed to crops, which he said was advancing one step higher, and then to the subject of the evening's discussion, *Farm Stock*—which he said raised us to a still higher range of ideas and brought us to the consideration of one of the greatest mysteries which the mind of man can contemplate. When we discuss the subject of farm stock, we have to contemplate the nature, laws and requirements of the vital agency and intellectual instinct, so to speak, which distinguishes the animal from the vegetable

creation. He believed there was no more striking proof of the goodness of Providence to man than is displayed in associating with him, as has been done, the inferior animals. He supposed the time was, when the families of domesticated animals, such as the horse, the ox, the dog and others, existed in as wild a state as the buffalo and the tiger—they were as wild but not so savage. Now what had guided man to the selection of some eight or ten or twelve of these families or races which time and patience could domesticate? It could only have been done by wisdom from above. That there is ultimate relation between man and these races of animals, we see by a thousand striking facts. He mentioned, especially, vaccination, a mild and gentle disease, which we take from the cow, and which is almost an infallible safeguard against one of the worst maladies to which the human race is exposed.

From the nature of these domestic animals, as he had attempted to indicate it, he drew two practical deductions:—First—inasmuch as these animals have, in some respects, a nature similar to man, it follows that they are subject to laws of health analogous to those applicable to us. So if the farmer would keep his stock in order either for work, milk, or beef, he must keep them in good health, and the necessary means must be used as well as in the case of man. It is no more possible that animals can do their duty when in an unhealthy state, than it is for man to do his duty in a similar state. He would not say that the fibre in animals was as tender as in man, but they do feel to some extent the causes which operate on the health of man. The horse requires good food, proper shelter, and pure atmosphere to enjoy health, as much as a man.

One other consideration was that these animals which compose our inferior family household (so to speak of them) have not only the same organic nature, but have the same nervous system, and are sensible to pain as much as man. He mentioned as a striking fact, the circumstance, that though Providence has not given to the inferior animals the power of speech in which to describe their sufferings, man, who has this power, is driven in his intensest agonies to utter his feelings in inarticulate groans; and thus both man and beast give utterance to their feelings in the same way. They are entitled to the same treatment. The man who would treat a beast unkindly and cruelly, he said was no man—but at heart, a brute. These humble members of our family are sensible to kindness as well as to pain. They know when they are well treated, and exhibit their gratitude for it. He wished for no better test of a thoughtful, prudent, considerate farmer, than the manner in which he treated his farm stock, and he would rather go to his final account like the poor Indian whose religion taught him that after death he shall enter the happy land with his trusty dog, than as the Christian who goes to church on the Sabbath, and on the week day cruelly beats his faithful ox with a walnut whip handle, or whips his over-worked horse till the strained tendons are ready to snap from their attachments.

Mr. J. W. Proctor, of Danvers, was the next speaker. He said the care of the stock on the farm necessarily engrosses a large share of the farmers' attention through the year. When we reflect that it takes very little more feed, and no more labor, to take care of a good animal, than a poor one, the benefit of care in the selection of animals will be so apparent, that no one who once understands it, will ever be inattentive to it. Take, for instance, a stock of cows that yield on an average 2 gallons of milk per day, through the 8 months of their milking season—which is as much as can be averaged of dairy stock generally, upon our farms, and suppose this quantity to be increased to three gallons, will it not be apparent that the last product would be a thriving business—where the first might afford but a scanty living to man and beast? Very many go on month after month, and year after year, without any particular inquiry or examination into these things. I have known a cow to be milked through the season, and highly estimated for the *quantity* she gave, when in fact, for the purpose for which it was used, her milk was of little or no value. The farmer should be as careful in testing the *quality* of his milk, as the *quantity*, and should never keep a cow, that does not give milk of the quality that he wants. Those who are experienced in these matters, can probably form some opinion, by the *form* and *appearance* of the animals; but the better way of judging, is, by *actual trial* of their milk. This done, there can be no mistake. I know dairy stock, that have been regulated upon this principle, where the produce has been increased *twenty-five per cent.*, at least, in the course of two years.

The same care that improves the dairy stock, the most important branch of stock upon our farm, can be applied with equal benefit to other branches of stock. I know a farmer who has for years been attentive to rearing and disciplining working cattle—the consequence is that his cattle, at four years of age, will command *thirty-three per cent.* more than those reared without such care. In a word, to ensure success to the operations on a farm, whatever may be the department of labor, vigilance and care are necessary; where these are applied—the consequence will be certain—where they are wanting, the consequence will be equally certain, though of a character entirely different.

A very small proportion of the farmers, in the eastern part of Massachusetts, raise their own stock. Their herds are generally replenished by the purchase of two-year olds, that come in, in the

autumn droves, from Maine, New Hampshire and Vermont. A full grown heifer with calf can be purchased from these for twelve or fifteen dollars —when it frequently happens, that the farmer can sell his calf, at six weeks old, if it has been properly fed, for about half this sum. Consequently a great saving is made in procuring his animals, provided they are of quality as good. The maxim, that "a good cow may have a bad calf," is one of our earliest nursery lessons. That there is a marked difference in the breed of animals, there can be no doubt; but that the peculiar properties of stock are dependent, quite as much upon the *male* as upon the *female*, there is as little doubt. In fact, the concurrent testimony of those who have given best attention to the subject is, that if you would secure the superior milking properties of a particular class of animals, look well to the Bull. I remember a practical illustration of this. About twenty years since, Mr. Pickering, then President of the Agricultural Society, made a present of an Alderney Bull, to the society. He was stationed in the best farming region, unde the care of Mr. Newell, one of the best farmers of the county. His progeny spread in the neighborhood by connection with the cows of the neighborhood; and upon the testimony of Mr. Newell, the peculiar milking properties of the race, are still distinctly observable, in that progeny. This, we understand, relates to the *quality*, more than the *quantity* of the milk. It is said, that *six quarts* of the milk of a well fed Alderney Cow, will make a pound of butter (where it will require 12 quarts statute measure) of cows generally. For those who are fond of rich milk, and make use of small quantities, say, not exceeding *one* or *two quarts* daily, it becomes an important inquiry, what is the character of the cows that produce the milk? The probability is, nine out of ten, who purchase milk, never think of instituting the inquiry. With them, *milk is milk*, and there is the end of it. Whoever has any regard to his own comfort, or loves a good cup of coffee, will not fail to notice these things. There are those, who, in selecting their cows, as well as other breeders, have regard chiefly to *symmetry of form, and grace of movement*, and nine chances out of ten such *connoisseurs* will *catch a tartar*. Give me the mother, that bears healthy and vigorous offspring, and nourishes them well, in preference to all others. This rule is equally applicable to all mothers.

Mr. Motley, of Jamaica Plains, made some statements in regard to the Alderney or Jersey stock, which has been recently imported by the State Society, and which is under his care. Some farmers feared that they would not stand our cold climate, but they have thus far borne the weather as well as other breeds. He had as yet put them to no test as regards their butter-making qualities, as they have not been here long enough to make a fair trial. Still he could say that there was one, a four-year old, which calved last May, and which some eight weeks after calving, gave an average of 14 quarts strained milk, (beer measure) of the richest quality, per day. There was also another, a heifer, which calved when two years and two months old, and gave nine quarts a day while the calf was sucking, and a few days ago gave seven quarts a day. She calved on the 26th of June last. In regard to a statement which has been made that the average yield of cows in this commonwealth is but four quarts per day, Mr. Motley said the average yield of his herd of 13 cows was for the entire year of 1851, 6 1-8 quarts per cow a day. He thought much depended upon the care taken of cows whether they will yield a large amount of milk. They should be well housed, and treated with kindness. The Jersey cows he had fed through the winter with the cheapest kind of shorts and linseed meal, giving them about five quarts twice a day. With this mixture they get about thirteen quarts of water.

Dr. Gardner, of Seekonk, spoke in high terms of the Galway or no-horned cattle, which he had kept with much profit. He believed cows of this breed to be the best of any for milk.

Mr. Simon Brown, of Concord, said he believed the means of improving our farm stock to lie within the reach of all who desire it. He thought well of introducing foreign breeds and testing them, and that a judicious crossing with several of them would prove advantageous to our common stock. Even some of the imported breeds, the Short-horns, Devons, or Ayrshires, he thought might be better adapted to our climate and manner of keeping, by mingling with it a portion of our "native blood." In regard to our common stock, he said he believed that after all it was about as good as any with which he was acquainted. The true test of this must be, not in selecting some two or three cows of either breed, but by selecting a herd of fifty or one hundred of our common stock, and then choosing as many of the imported, or those having a cross of them, all from the same neighborhood, grazing upon similar pastures, and treated alike in all respects, and our native cows, he thought, would show as favorable a result as any other breed which has been introduced among us.

At the Show of Middlesex County last fall, he saw some of the finest native cows he had ever seen—being large, possessing fine points, and yielding a great flow of milk. In regard to fixing the standard of the number of quarts of milk to a pound of butter, he did not think it could be satisfactorily approached, because cows vary so much in the *quality* of their milk. The cheap and easy way to ascertain which are the best cows for the dairy is by the lactometer, which is simply a glass tube graduated so as to show the proportion of cream which rises. He doubted whether cows through-

out the State came up to an average of *four quarts* a day during the year, and this result would be found owing in no small degree to the manner in which they are kept. The opinion still extensively prevails that the *cheapest* way, for the time, is the best—that cows in calf, and dry, may be kept just as well upon meadow hay, with an occasional foddering of something better. He believed that the profit of cows during their milking season in summer depended very much upon the manner in which they had been wintered. There should be more regularity in tending them; attention should be reduced to a system. Cleanliness and an even temperature are also important. To show their sensitiveness to a change of temperature, he stated that a friend had told him that his cows, 28 in number, had shrunk eight quarts by having the barn doors open on a cold day, during the time they were engaged in stowing away a load of hay, being a little less than half a pint to each cow. He was strongly of the opinion that a manifest improvement may be made in our common stock, even without the aid of foreign blood, by plenty of good feed, at proper times, and by uniform kind care. In conclusion, Mr. Brown wished the laws might be enforced against the barbarians who daily maltreat their animals in our streets.

Mr. Brigham, of Westboro', expressed the opinion that dairy stock is the only stock which the farmers of Massachusetts can raise with profit. In his vicinity farmers keep cows for their milk to sell, and they have animals, a class of the Durham, which produce sixteen quarts per day when in full flow; some even go as high as 20 or 21 quarts, but these latter are not common. He thought cows in his vicinity would average as much as Mr. Motley's—6 quarts per day. Farmers in his vicinity expect to sell $50 of milk from a cow a year. In some dairies they average $70, and that without using the "irontailed cow." There is none of that breed, he says, in his vicinity. He believed that by careful selection, and proper care in breeding, we can in a few years be sure of a generation of cattle which will be truly valuable. He had tried this method with good results.

Mr. Sheldon, of Wilmington, said we can raise our heifers cheaper here than we can get them from Vermont and New Hampshire. To prove this he went into a calculation of the expense of raising a two-year old in Massachusetts and in Vermont, the result of which was that the Massachusetts farmer would make $3 by raising his own heifers. Steers can be raised cheaper in Vermont or New Hampshire—and a good two year old heifer raised in the vicinity of Boston will sell for enough to buy a pair of two year old steers. He could sell 50 cows to-day for $50 each, if he could find those which are worth it. In raising stock for the dairy, great kindness should be used. The native breed he believed as good as any. He had crossed the native with the Ayreshire, which he believed to be the best milkers of any imported breeds. The great trouble with them is their teats are too small. For cream and beef the Durhams are good—of the Devons he had a very poor opinion. For pigs he preferred a cross of the Suffolk with the Middlesex, or Hampshire, to a pure Suffolk. He could not raise so many pigs with full blooded Suffolk sows as with those of a mixed breed.

A letter from Col. Newhall, of Essex County, was then read, detailing his experience in the management of dairy stock and the meeting then adjourned.

Next Tuesday evening Hon. Isaac Davis, of Worcester, will preside. Subject for discussion—*Grasses and Grain Crops.*

Ladies' Department.

TASTE IN FURNITURE.

It is scarcely possible to lay down a rule with respect to the ordinary furniture of a room, yet there is a general law of propriety which ought as much as possible to be observed. Regard must be had to what is called "the fitness of things," and thereby the avoiding of violent contrasts. For instance, sometimes a showy centre-table is seen in the middle of a room, where the carpet and every other article is shabby and out of repair; or a flashy looking-glass stands above the chimney-piece, as though to reflect the incongruous taste of its owner. Shabby things always look the shabbier when thus contrasted with what is bright and new. We do not mean to say that new articles should never be purchased; we remark only, that in buying furniture, regard should be had to the condition of the room in which it is to be placed. For this reason, second-hand furniture is sometimes preferable to new.

"So many men, so many minds," is an old saying; and scarcely two people agree in choosing their assortment of furniture. What is convenient for one is inconvenient for another, and that which is considered ornamental by one family, would be thought ugly by their neighbors. There are, however, certain articles suited to most rooms—an ordinary parlor, for example. The number of chairs depends on the size of the room; eight are usually chosen, two of them being elbows. A square two-flap pembroke table, or a circular one with tripod stand, occupies the centre of the apartment. At one side stands a sofa, a sideboard, a chiffonier, or perhaps a bookcase. Sometimes the chiffonier, with a few shelves fixed to the wall above it, is made to do the duty as a bookcase, and it answers the purpose very well. If there be no sofa, there will be probably an easy chair, in a snug corner, not far from the fire-place; in another corner stands a small work-table, or a light occasional table is placed near the window, to hold a flower-basket, or some other ornamental article. These constitute the articles most needed in a room; there are several smaller things which may be added according to circumstances.

It is one thing to have furniture in a room, and

another to know how to arrange it. To do this to the best advantage, requires the exercise of a little thought and judgment. Some people live with their furniture in the most inconvenient positions, because it never occurred to them to shift it from place to place, until they had really found which was the most suitable. Those who are willing to make the attempt, will often find that a room is improved in appearance and convenience by a little change in the place of the furniture.

It is too much the practice to cover the mantelpiece with a number and variety of knick-knacks and monstrosities by way of ornament; but this is in very bad taste. Three, or at most four articles, are all that should be seen in that conspicuous situation. Vases of white porcelain, called "Parian," or of old china, or a small statue, or a shell or two, are the most suitable. The forms of some of the white vases now sold at a low price, are so elegant, that it is a real pleasure to look at them.

BREAD WITHOUT CRUST.

The following will be interesting to housekeepers, and we would advise its trial—for if hard crusts and burned bread can be avoided, it will be a saving worth accomplishing. The Wyoming Co. Mirror says:

Mr. Throop, of this village, lately presented us a loaf of bread, which was done, and well done, *without a crust*. The process of baking, or rather steaming, he gave as follows: Prepare the dough the same as for baking, in a tin basin; when in a proper condition, instead of putting into the oven, put it into a kettle. There should be something in the bottom of the kettle, a hoop of tin two or three inches broad would be best, to keep the basin from the bottom, and there should be sufficient water to cover about one-third of the basin. Keep the water constantly boiling from the time the loaf is put in, till it is done, which will be about three-quarters of an hour, with an ordinary sized loaf. To know when it is done, press upon the centre of the top of the loaf with the thumb, and if done it will puff back on removing the thumb, if not, the indention will remain.

The loaf presented us is nearly as white outside as inside, and the outside is scarcely any harder than the rest. The flavor is not perceptibly different from bread well baked. We have tried the experiment in our family, with perfect success. It looks white and beautiful, and we think fully equals ordinary bread in its flavor.

How to Make Nice Candles.—Candlewick, if steeped in lime and saltpetre, and dried in the sun, will give a clearer light, and be less apt to run.

Good candles may be made thus:—Melt together ten ounces of mutton tallow, a quarter of an ounce of camphor, four ounces of beeswax, and two ounces of alum; then run it into moulds, or dip the candles. These candles furnish a beautiful light.

To remove Black Spots from Plate.—Boil the articles in three pints of water, with an ounce of calcined hartshorn; drain, dry by fire, and polish with soft linen rags which have been boiled in the same liquid and afterwards dried, using purified whitening as the plate powder.

Boy's Department.

DANIEL WEBSTER IN BOYHOOD.

In his fifteenth year Daniel Webster was privileged to spend some months with one of the more prominent clergymen of the day, the Rev. Samuel Woods, who lived at Boscawen, and prepared boys for college at one dollar a week, for tuition and board. During his stay with Dr. Woods he was apparently very neglectful of his academic duties, but never failed to perform all his intellectual tasks with great credit. On one occasion the reverend tutor thought proper to give his scholar Daniel a scolding for spending too much of his time up hills and along the streams, hunting and fishing, but still complimented him for his smartness. The task assigned to him for his next recitation was one hundred lines of Virgil; and, as he knew that his master had an engagement on the following morning, an idea occurred to him, and he spent the entire night poring over his books. The recitation hour finally arrived, and the scholar acquitted himself of his hundred lines, and received the tutor's approbation. "But I have a few more lines that I can recite," said the boy Daniel. "Well, let's have them," replied the doctor; and forthwith the boy reeled off another hundred lines. "Very remarkable," said the doctor; "you are indeed a smart boy." "But I have another," said the scholar, "and five hundred of them if you please." The doctor was of course astonished, but, as he bethought him of his engagement, he begged to be excused, and added, "You may have the whole day, Dan, for pigeon shooting."

FIRST STEP TO RUIN.

"My first step to ruin," exclaimed a wretched youth as he lay tossing from side to side on the straw bed in one corner of his prison-house, "My first step to ruin was going fishing on the Sabbath. I knew it was wrong, my mother taught me better; my minister taught me better; my master taught me better; my Bible taught me better. I did not believe them, but I did not think it would come to this. I am undone! I am lost!"

Perhaps he said—it is too pleasant to be cooped up in church. What harm is there in taking a stroll in the woods? What harm in carrying my fishing tackle and sitting on the banks to fish?

What harm? Why the harm is that God is disobeyed, who says, "Remember the Sabbath day to keep it holy." The moment a youth determines to have his own way, choosing his own pleasures before God's will, that moment he lets go his rudder, his compass, his chart; nothing but God's word can guide you safely over the ocean of life. Give that up, you are bewildered, you are drifting, you will be lost.—*Child's Paper.*

Rules and Reasons.—Horne Tooke, when at Eton, was one day asked by the master the reason why a certain verb governed a particular case. He answered, "I don't know." "That is impossible," said the master; "I know you are not ignorant, but obstinate." Horne, however, persisted, and the master flogged. After the punishment, the master quoted the rule of grammar which bore on the subject, and Horne instantly replied, "I know that very well, but you did not ask me for the *rule*—you demanded the *reason*."

Walnut Grove Nursery.

JAMES HYDE & SON.

We have for sale at our Nursery a larger assortment of trees than ever before offered by us, consisting in part of Apple, Pear, Plum, Cherry and Peach.

Also, Quinces, Currants, Raspberries, Grapevines, &c. &c.

Ornamental Trees and Shrubs, Buckthorn Plants, &c. &c.

A prime lot of Red Dutch Currants, good size, $5 per hundred, or $40 per thousand.

Fine Apple trees, three to five years' growth from bud, seven to nine feet high, $25 per hundred, or $200 per thousand.

We devote ourselves solely to the raising of trees; they receive our strict personal attention; we are therefore able to warrant every article true to name.

Those who intend purchasing large quantities of Apple trees are respectfully invited to call before purchasing, and examine our stock, as it is large, and doubtless unsurpassed by any in the vicinity.

A liberal discount on all articles by the hundred.

Orders for Scions, (if sent early,) faithfully attended to.

Trees delivered in Boston free of expense, packed if desired. Catalogues sent to *post-paid* applicants.

☞ All orders thankfully received, and promptly executed.

JAMES HYDE & SON.

Newton Centre, Feb. 21, 1852. 3m*

For Sale,

Four pleasantly situated dwellings in ELIOT STREET, JAMAICA PLAIN.

Also, two farms on WELD STREET, WEST ROXBURY;—the one containing about forty acres, with house and barn; the other containing about twenty-three acres, with house and two barns.

But a small portion of cash is wanted for any of this property. Apply to J. C. GORE, Jamaica Plain.

Feb. 21, 1852. 2m—*2

American Veterinary Journal,

DEVOTED to the Diffusion of Veterinary Knowledge, and its collateral sciences. Published monthly, octavo form, containing thirty-two pages, making at the end of the year a handsome volume of three hundred and eighty-four pages, to which an index will be furnished.

Price $1,00 per year in advance. Six copies for $5,00.

Edited by GEORGE H. DADD, Veterinary Practitioner, to whom all communications, *post-paid*, must be directed.

Boston, Feb. 14. 2w—*2

Farm at Auction.

Will be sold at Public Auction, on the premises, on WEDNESDAY, the 3d day of MARCH, at one o'clock, P. M., the large and valuable farm belonging to the late AMOS GOULD, of IPSWICH.

Said farm is situated on the road leading from Ipswich to Topsfield, about 2½ miles west of the depot, 4 miles from Wenham Depot, and 10 miles from Salem, and bounded south by Ipswich river; containing upwards of three hundred acres of good land, well fenced with heavy stone walls, with one of the best orchards in the town, covering about 12 acres of land, and is mostly grafted with choice fruit, and in bearing state; also, 7 acres of woodland covered with Oak and Walnut wood and timber. The buildings on the farm are good; the dwelling-house is a double one, two stories high and completely finished. There are three barns, three sheds, corn-house, cider-mill, wood-shed and piggery, with other out-buildings in good repair.

Said farm is capable of keeping 30 to 35 head of cattle in winter, and 40 to 45 head in summer, and is well calculated for a milk farm for Boston market.

Also, a lot of salt marsh lying in Ipswich, on the Hundreds so called, and a lot of peat meadow in the same town. Also, two lots of woodland, about 5 acres each, and one lot of meadow in Topsfield on Averill's Island, so called, together with all the stock, tools, and produce on the farm.

The above described premises will be sold at the time and place above mentioned, if not previously disposed of at private sale.

☞ If the day designated should be very stormy, the sale will take place the first *fair* day.

☞ Inquire of AMOS GOULD, Wenham, Mass., or B. F. PATCH, on the premises.

Feb. 7, 1852. 4w—*1

Cast Steel Axes.

SUPERIOR Cast Steel AXES, of "Hunt's," "White & Olmstead's" and "Hannum's" manufacture, all warranted. For sale, wholesale and retail, by RUGGLES, NOURSE, MASON & CO., Quincy Hall, (over the Market,) Boston.

Jan. 10. 3m*

Fishkill Landing Nursery,

2½ MILES NORTH FROM THE NEWBURGH FERRY.

FRUIT AND ORNAMENTAL TREES.

The subscriber respectfully solicits the attention of FRUIT GROWERS, and dealers in Fruit Trees, to his large stock offered for sale the present spring, consisting of

48,000 APPLE TREES,

of the most approved varieties, 6 to 10 feet high, at from $12 to $14 per hundred.

20,000 PEAR TREES,

embracing over one hundred of the best varieties, 5 to 8 feet, 30 cents each, $28 per hundred.

30,000 CHERRY TREES,

two or three years from the inoculation, 6 to 12 feet, at $20 to $25 per hundred.

5000 APRICOT, OF THE BEST VARIETIES,

one to three years from the bud, $8 to $12 on Peach, and $25 to $30 on Plum stocks, per hundred.

20,000 PEACH TREES,

of the most valuable standard varieties, entirely free from disease, 7 cents each, $6 per hundred.

5000 ISABELLA AND CATAWBA GRAPE-VINES,

two to four years old, with fine roots, having been annually cut back; they are in excellent condition for vineyard planting —20 cents each, $10 to $15 per hundred.

2000 QUINCE TREES,

mostly of the apple variety. Currant and Raspberry bushes, Strawberry plants, Summer Hybrid perpetual and other Roses, &c. &c.

40,000 DECIDUOUS AND EVERGREEN

Ornamental Trees, many of which are of large size and fine form. 10,000 Arbor Vita, 1½ to 5 feet high, $12 to $15 per hundred.

8000 BALSAM FIR,

1½ to 5 feet, $12 to $30 per hundred.

The subscriber, in consequence of the advantages he possesses, is enabled to sell at low prices; having 300 acres of land, with a variety of soil, the different kinds of plants are cultivated in that best suited to their growth. His facilities for forwarding packages are all that he can desire. The Nursery is within 2½ miles of the Hudson River Railroad Depot, at Fishkill Landing. Steamboats run daily to New York and Albany from Newburgh, on the opposite side of the river.

From 50 to 60 acres attached to the Nursery are closely set with Standard and Specimen trees, which greatly increase his facilities for the attainment of correctness. The new and most valuable varieties of the Apple, Peach, Pear, Plum, Apricot, Cherry, &c., which have recently originated in this country and Europe, have been procured as early as practicable, and tested, or are in the course of being tested, in the proprietor's own grounds. The new and rare Deciduous and Evergreen Ornamental Trees are annually imported, of which fine plants can be furnished.

Those who are planting Orchards, starting Nurseries, or engaged in the sale of trees, &c., are invited to examine his stock.

Trees, Shrubs, &c., when ordered, will be taken up carefully, correctly labelled, packed in the best manner, forwarded agreeable to order, and with the least possible delay.

☞ Catalogues sent to all who apply by post-paid letters.

DANIEL BRINCKERHOFF.

Fishkill Landing, Feb. 28, 1852. 2w—*1

Farmer Wanted.

WANTED, a man with his wife, to take charge of a Farm, about twelve miles from Boston; one who can give undoubted reference as to character and capability. To a person who gives satisfaction, it will be a permanent situation.

Apply to C. & M. COX,

Feb. 21, 1852. 1stf 26 and 28 Central St., Boston.

The Working Farmer.

A MONTHLY Periodical devoted to Agriculture, Horticulture, Floraculture, Kitchen Gardening, Management of Hot Houses, Green Houses, &c., embracing Agricultural Chemistry, Preparation of Manures, &c.

Edited by PROFESSOR JAMES J. MAPES, and published by FRED'K McCREADY, American Institute, 351 Broadway, New York.

TERMS PER YEAR IN ADVANCE,

Single Copies.....$1,00
Six Copies.....5,00
Twenty-five Copies.....20,00

Back Volumes in covers at subscription prices. The Fourth Volume will commence March 1, 1852.

Jan. 1, 1852. 2t*

Cattle Ties.

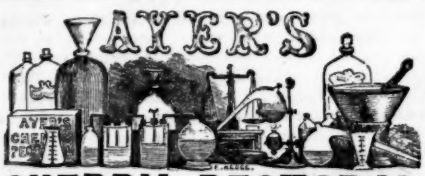
OX AND COW TIES, of all sizes, a large assortment; also, Draft and Trace Chains; just received and for sale low by RUGGLES, NOURSE, MASON & CO., (over the Market,) Boston. 3m* Jan. 10.

Garden Seeds.

WE respectfully solicit the attention of purchasers of GARDEN SEEDS to our extensive stock, which we offer for sale. We have all the sorts of Vegetable Seeds that have proved worthy of cultivation; also, Grain, Grass and Flower Seeds. All the varieties are raised and selected expressly for our trade, and we do with confidence recommend them to all who desire to procure seeds that will prove true to their names.

☞ Catalogues gratis, on application.

RUGGLES, NOURSE, MASON & CO.,
Jan. 1. Over Quincy Market, Boston.



CHERRY PECTORAL

For the Cure of

COUGHS, COLDS, HOARSENESS, BRONCHITIS, WHOOPING-COUGH, CROUP, ASTHMA, AND CONSUMPTION.

THIS invaluable remedy for all diseases of the Throat and Lungs has attained a celebrity, from its remarkable cures, never equalled by any other medicine before. Other preparations have shown themselves *palliatives*, and sometimes effected notable cures, but none has ever so fully won the confidence of every community where it is known. After years of trial in every climate, the results have indisputably shown it to possess a mastery over this dangerous class of diseases which could not fail to attract the attention of physicians, patients and the public generally.

See the statements, not of obscure individuals, and from far distant places, but of men who are known and respected throughout the country.

The widely-celebrated surgeon, Dr. VALENTINE MOTT, of New York city, says:—"It gives me pleasure to certify the value and efficacy of "*Ayer's Cherry Pectoral*," which I consider peculiarly adapted to cure diseases of the throat and lungs."

Dr. PERKINS, the venerable President of the Vermont Medical College, one of the eminently learned physicians of this country, writes, the *Cherry Pectoral* is extensively used in this section, where it has shown unmistakable evidence of its happy effects upon pulmonary diseases.

Rev. JNO. D. COCHRANE, a distinguished clergyman of the English Church, writes to the proprietor from Montreal hat "he has been cured of a severe asthmatic affection, by *Cherry Pectoral*." His letter, at full length, may be found in our Circular, to be had of the Agent, and is worth the attention of asthmatic patients.

This letter is from the well-known Druggist at Hillsdale, Michigan, one of the largest dealers in the State; and this case is from his own observation:

HILLSDALE, MICH., Dec. 10, 1849.

Dear Sir:—Immediately on receipt of your *Cherry Pectoral* I carried a bottle to an acquaintance of mine who was thought to be near his end with quick consumption. He was then unable to rise from his bed, and was extremely feeble. His friends believed he must soon die, unless relief could be obtained for him, and I induced them to give him your excellent medicine a trial. I immediately left town for three weeks, and you may judge of my surprise on my return, to meet him in the street on my way home from the cars, and find he had entirely recovered. Four weeks from the day he commenced taking your medicine, he was at work at his arduous trade of a blacksmith.

There are other cases within my knowledge, where the Cherry Pectoral has been singularly successful, but none so marked as this. Very truly yours,

G. W. UNDERWOOD.

PREPARED AND SOLD BY JAMES C. AYER,

Practical Chemist, Lowell, Mass.

Feb. 14, 1852. 3m

Zinc Milk Pans.

A NEW ARTICLE, without seam or solder, and will not rust. At wholesale and retail, (over the Market,) Boston.

RUGGLES, NOURSE, MASON & CO.
Jan. 10. 3m*

Mexican Guano.

A NEW ARTICLE is now offered to the Agriculturist and Dealers, under the above name, from its having been found near the Mexican coast. It has been analyzed by C. T. Jackson, M. D., State Assayer, Boston, Dr. David Stewart, of Baltimore, and others. Dr. Stewart says it contains the largest proportion of Phosphates he has ever met with in Guano.

The following are the result of the analysis made by C. T. Jackson, M. D.:

Water	23.40
Vegetable Matter	15.80
Soluble Salts (in Water) Phos. Soda	0.12
Phosphates of Lime and Magnesia	60.50
Insoluble Matter (Selex)	0.10
	99,92

The quality of this Guano as a rich fertilizer, and the great reduction in price compared with the Peruvian, is such as to render it an object for the agriculturist and dealers to buy and give it a trial. It may be obtained of A. D. WELD, 127 State Street, or P. A. STONE, who may be found at 15 Crescent Place, Boston, where also other information may be obtained respecting it. tf—* Feb. 21.

Circular.

THE subscriber takes this opportunity to return his thanks to the citizens of WALTHAM and vicinity for their liberal patronage for several years past, and solicits a continuance of the same. Orders for JOB PRINTING, of every description, promptly attended to, as usual, and returned immediately.

Address JOSIAH HASTINGS, Waltham.

N. B.—He would also give notice, that for the better accommodation of many of his customers, and the public generally in adjoining towns and at a distance, who now go to Boston by way of railroads, that he has made an arrangement with Mr. J. C. FRENCH, (formerly a workman in his office in Waltham,) at No. 11 CORNHILL, BOSTON, where orders for Book, Plain and Fancy Card and Job Printing, will be neatly and promptly executed on new Machine Presses, at the lowest prices, and returned immediately, by Express or otherwise, as may best suit the convenience of customers.

Address J. C. FRENCH & CO.,
Feb. 7. tf* No. 11 Cornhill, Boston.

State Mutual Life Assurance Co.

OF WORCESTER.

GUARANTEE CAPITAL, $100,000.

Hon. JOHN DAVIS, President.

Hon. ISAAC DAVIS, } Vice
Hon. STEPHEN SALISBURY, } Presidents.

THIS Company was chartered in March, 1844, and commenced business on the first of June, 1845. Its business is conducted on the most economical principles.

The well considered and invariable policy of this Company has been to prefer the safety and mutuality of the assured to the showy advantages of a large number of policies, and an imposing amount of receipts. California risks have been uniformly declined, and the multiplication of policies in cities considered especially liable to cholera has not been encouraged.

The cash premiums of this company are calculated on the most approved tables of the probability of life, and at the lowest rates which are deemed safe.

Pamphlets, explaining the principles and advantages of life assurance, with forms of application and rates of premium, may be had by application at the Office of the Company in Worcester, or of the Agents in all the principal towns in New England. CLARENDON HARRIS, Secretary.

Dec. 27, 1851. 1stf*

Pure Devon Stock.

COWS, HEIFERS, BULLS and BULL-CALVES for sale. Apply at Office of N. E. Farmer, or to the subscriber.

B. V. FRENCH,
Dec. 27, 1851. 1yr* Braintree, Mass.

Fruit Trees.

The proprietors offer for sale a large and fine stock of Fruit, and Ornamental Trees, Shrubs, Buckthorn Plants &c.

Pear, Apple, Peach, Cherry and Plum Trees of choice standard varieties. Also Quinces, Gooseberries, Currants, Raspberries, Strawberries, Grape Vines, &c.

Extra sized Hamburghs for the Conservatory or Grapery. A fine lot of Cherry and Apple Trees, two to four years from bud. The whole for sale at reduced prices.

D. & G. F. STONE,
Hammond Street, East Newton.
Jan. 10, 1852. w16t—*4t*

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Horses for Sale.

I HAVE for sale one pair splendid BAY HORSES, six years old, free from any white, with black legs, manes and tails, (short switch tails,) sixteen and a-half hands high, weighing 2600 pounds.

Also one pair SORREL OR CHESTNUT HORSES, six and seven years old, fifteen and a-fourth hands high, of the Morgan style of horses, weighing 2200 lbs. None better if as good.

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Any person desiring such horses, I think would be pleased with them. Any inquiries post-paid will be replied to.

J. M. SHERWOOD, Auburn,
Februrary 21, 1852. Cayuga County, N. Y.
3w—*1

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THE Editor of the *New England Farmer* wishes to purchase a pure DEVON BULL, about two years old. Apply at office. *tf Jan. 31, 1852.

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Over 300	"	" 1000	15	"	"
Over 1000	"	" 2000	20	"	"
Over 2000	"	" 4000	25	"	"
Over 4000	"	"	30	"	"

To prevent any misunderstanding, we quote the 16th section of the law of 3d March, 1845, which is as follows:

SEC. 16. And be it further enacted, that the term "Newspaper," herein before used, shall be, and the same is hereby defined to be, any printed publication, issued in numbers, consisting of not more than two sheets, and published at short stated intervals of not more than one month, conveying intelligence of passing events, and *bona fide extras* and *supplements* of such publication.

PROSPECTUS FOR 1852.

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